```
=> d his

     (FILE 'HOME' ENTERED AT 15:16:40 ON 06 NOV 2006)

     FILE 'REGISTRY' ENTERED AT 15:16:55 ON 06 NOV 2006
L1                STRUCTURE UPLOADED
L2             15 S L1
L3                STRUCTURE UPLOADED
L4              1 S L3
L5             16 S L3 SSS FULL

     FILE 'CAPLUS' ENTERED AT 15:20:45 ON 06 NOV 2006
L6              6 S L5
L7              5 S L6 NOT PY>2000
```

```
=> file registry
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 15:16:55 ON 06 NOV 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    5 NOV 2006  HIGHEST RN 912451-62-8
DICTIONARY FILE UPDATES:   5 NOV 2006  HIGHEST RN 912451-62-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

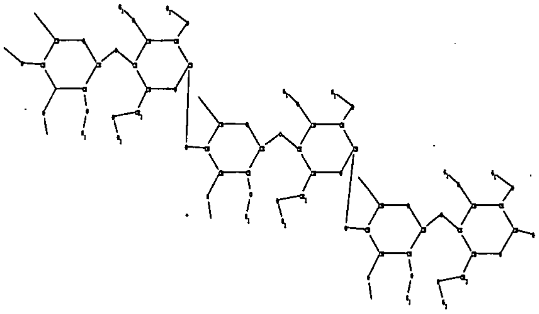
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

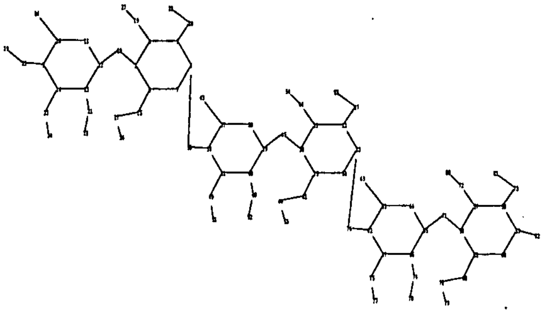
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10677895alkyl.str
```





chain nodes :
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 42 43 44 45 46 47
48 49 50 51 52 53 54 55 68 69 70 71 72 73 74 75 76 77 78 79 80
81 82
ring nodes :
3 4 5 6 7 8 9 10 11 12 13 14 30 31 32 33 34 35 36 37 38 39
40 41 56 57 58 59 60 61 62 63 64 65 66 67
chain bonds :
3-18 4-19 5-20 6-50 8-15 9-23 10-16 12-18 13-21 14-22 15-17 17-26 19-27
20-28 21-25 22-24 23-29 30-45 31-46 32-47 33-76 35-42 36-50 37-43 39-45
40-48 41-49
42-44 44-53 46-54 47-55 48-52 49-51 56-71 57-72 58-73 59-82 61-68 62-76
63-69 65-71
66-74 67-75 68-70 70-79 72-80 73-81 74-78 75-77
ring bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14 30-31 30-35
31-32 32-33 33-34 34-35 36-37 36-41 37-38 38-39 39-40 40-41 56-57 56-61
57-58 58-59
59-60 60-61 62-63 62-67 63-64 64-65 65-66 66-67
exact/norm bonds :
3-4 3-8 3-18 4-5 4-19 5-6 5-20 6-7 6-50 7-8 9-10 9-14 9-23 10-11 11-12
12-13 12-18 13-14 13-21 14-22 17-26 19-27 20-28 21-25 22-24 23-29 30-31
30-35 30-45
31-32 31-46 32-33 32-47 33-34 33-76 34-35 36-37 36-41 36-50 37-38 38-39
39-40 39-45
40-41 40-48 41-49 44-53 46-54 47-55 48-52 49-51 56-57 56-61 56-71 57-58
57-72 58-59
58-73 59-60 59-82 60-61 62-63 62-67 62-76 63-64 64-65 65-66 65-71 66-67
66-74 67-75
70-79 72-80 73-81 74-78 75-77

```
exact bonds :
8-15  10-16  15-17  35-42  37-43  42-44  61-68  63-69  68-70


G1:CH3,SO3H,C

G2

Match level :
3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom  11:Atom  12:Atom
13:Atom  14:Atom  15:CLASS  16:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
21:CLASS  22:CLASS
23:CLASS  24:CLASS  25:CLASS  26:CLASS  27:CLASS  28:CLASS  29:CLASS  30:Atom
31:Atom  32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:CLASS
43:CLASS
44:CLASS  45:CLASS  46:CLASS  47:CLASS  48:CLASS  49:CLASS  50:CLASS  51:CLASS
52:CLASS  53:CLASS
54:CLASS  55:CLASS  56:Atom  57:Atom  58:Atom  59:Atom  60:Atom  61:Atom  62:Atom
63:Atom  64:Atom
65:Atom  66:Atom  67:Atom  68:CLASS  69:CLASS  70:CLASS  71:CLASS  72:CLASS
73:CLASS  74:CLASS
75:CLASS  76:CLASS  77:CLASS  78:CLASS  79:CLASS  80:CLASS  81:CLASS  82:CLASS



L1       STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1
SAMPLE SEARCH INITIATED 15:17:21 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      841 TO ITERATE

100.0% PROCESSED      841 ITERATIONS                              15 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:         15081 TO    18559
PROJECTED ANSWERS:               68 TO      532

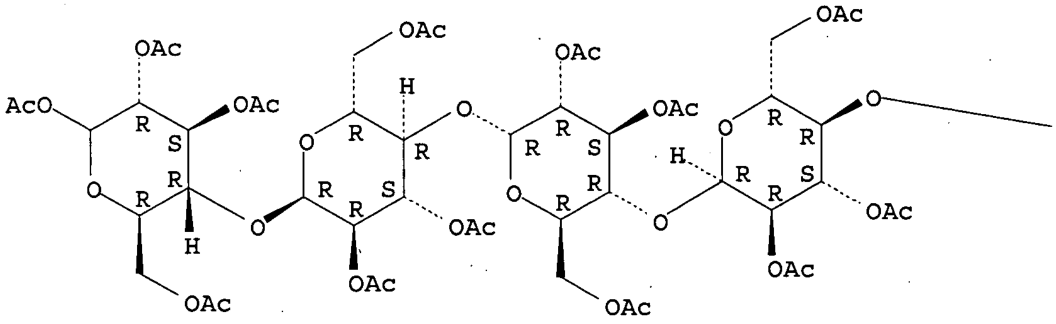
L2           15 SEA SSS SAM L1

=> d l2 scan

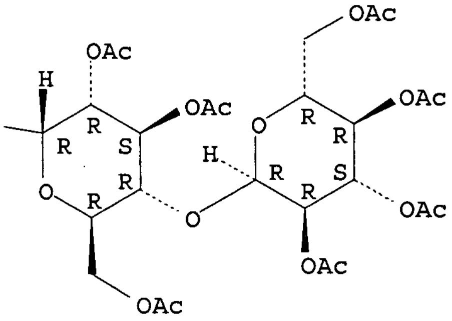
L2   15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-glucopyranosyl-
     (1→4)-O-2,3,6-tri-O-acetyl-α-D-glucopyranosyl-(1→4)-O-
     2,3,6-tri-O-acetyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-
     acetyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-α-
     D-glucopyranosyl-(1→4)-, tetraacetate (9CI)
MF   C76 H102 O51

Absolute stereochemistry.
```

PAGE 1-A



PAGE 1-B



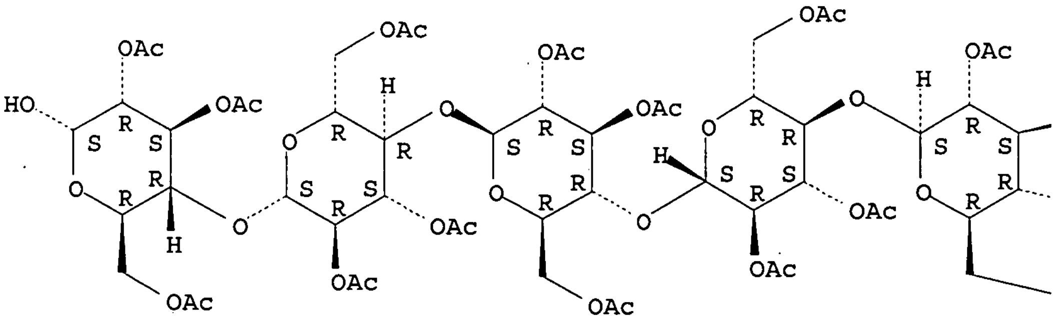
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

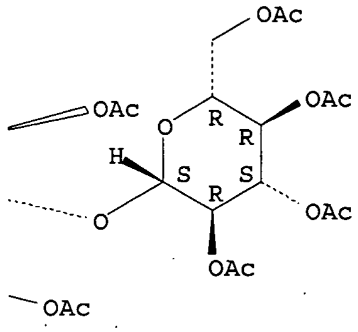
L2 15 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranose, O-2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-, 2,3,6-triacetate (9CI)
MF $C_{74}H_{100}O_{50}$

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 1-B

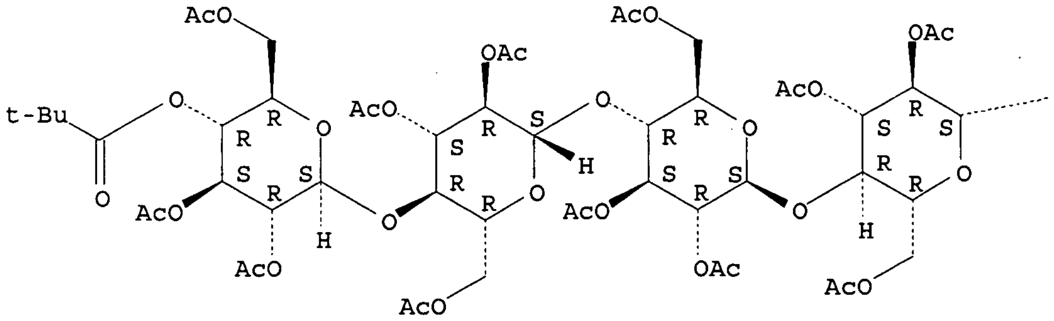


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

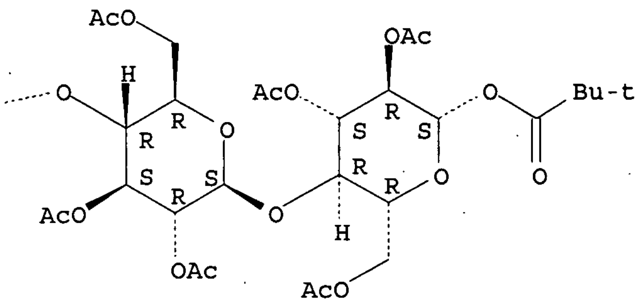
L2 15 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN β-D-Glucopyranose, O-2,3,6-tri-O-acetyl-4-O-(2,2-dimethyl-1-oxopropyl)-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-, 2,3,6-triacetate 1-(2,2-dimethylpropanoate) (9CI)
MF C82 H114 O51

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

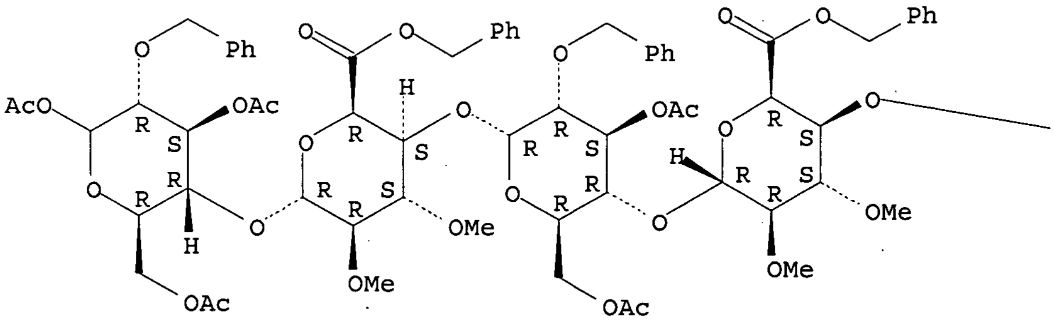


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

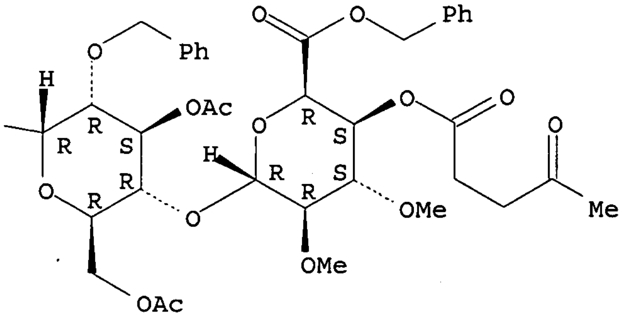
L2 15 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, triacetate (9CI)
MF C103 H124 O43

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

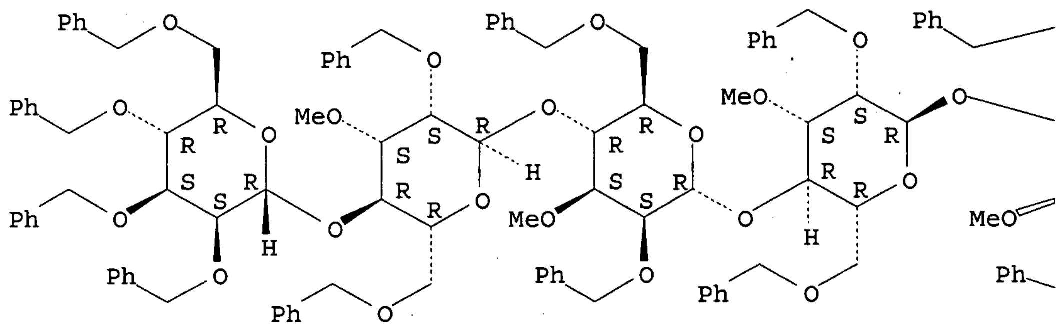


```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

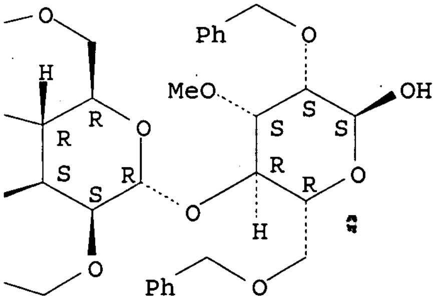
L2    15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN    α-D-Mannopyranose, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-
      mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-(phenylmethyl)-α-
      D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-(phenylmethyl)-
      α-D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-
      (phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-
      O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-3-O-methyl-2,6-bis-
      O-(phenylmethyl)- (9CI)
MF    C139 H156 O31

Absolute stereochemistry.  Rotation (+).
```

PAGE 1-A



PAGE 1-B

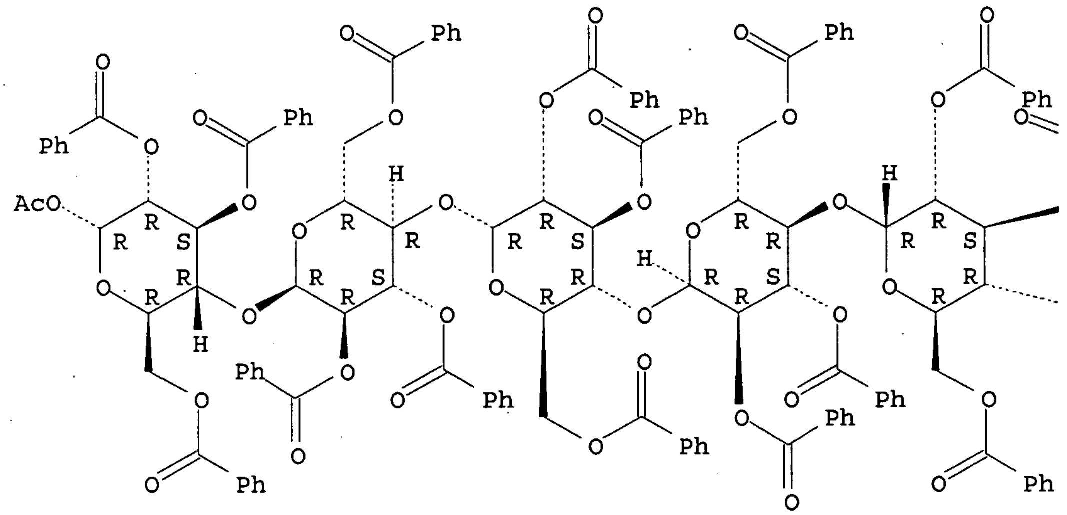


```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

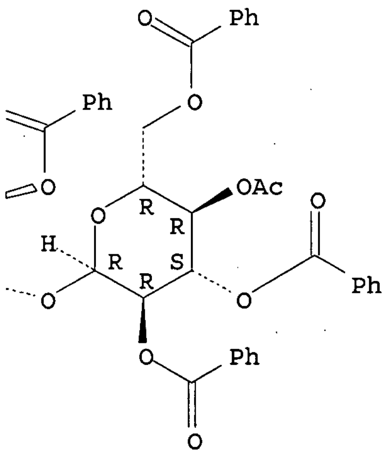
L2    15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN    α-D-Glucopyranose, O-4-O-acetyl-2,3,6-tri-O-benzoyl-α-D-
      glucopyranosyl-(1→4)-O-2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-
      (1→4)-O-2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-(1→4)-O-
      2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-
      benzoyl-α-D-glucopyranosyl-(1→4)-, 1-acetate
      2,3,6-tribenzoate (9CI)
MF    C166 H138 O51
```

```
Absolute stereochemistry.  Rotation (+).
```

PAGE 1-A



PAGE 1-B



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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>
Uploading C:\Program Files\Stnexp\Queries\10677894alkyl2.str
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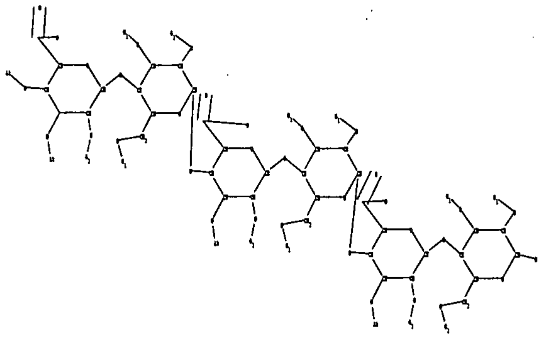
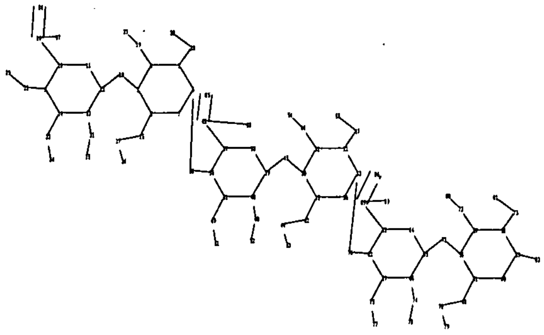




chain nodes :
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 42 43 44 45 46 47
48 49 50 51 52 53 54 55 68 69 70 71 72 73 74 75 76 77 78 79 80
81 82 84
85 86 87 88 89
ring nodes :
3 4 5 6 7 8 9 10 11 12 13 14 30 31 32 33 34 35 36 37 38 39
40 41 56 57 58 59 60 61 62 63 64 65 66 67
chain bonds :
3-18 4-19 5-20 6-50 8-15 9-23 10-16 12-18 13-21 14-22 15-17 16-86 16-87
17-26 19-27 20-28 21-25 22-24 23-29 30-45 31-46 32-47 33-76 35-42 36-50
37-43 39-45
40-48 41-49 42-44 43-85 43-88 44-53 46-54 47-55 48-52 49-51 56-71 57-72
58-73 59-82
61-68 62-76 63-69 65-71 66-74 67-75 68-70 69-84 69-89 70-79 72-80 73-81
74-78 75-77

ring bonds :
3-4 3-8 4-5 5-6 6-7 7-8 9-10 9-14 10-11 11-12 12-13 13-14 30-31 30-35
31-32 32-33 33-34 34-35 36-37 36-41 37-38 38-39 39-40 40-41 56-57 56-61
57-58 58-59
59-60 60-61 62-63 62-67 63-64 64-65 65-66 66-67
exact/norm bonds :
3-4 3-8 3-18 4-5 4-19 5-6 5-20 6-7 6-50 7-8 9-10 9-14 9-23 10-11 11-12
12-13 12-18 13-14 13-21 14-22 16-86 16-87 17-26 19-27 20-28 21-25 22-24
23-29 30-31
30-35 30-45 31-32 31-46 32-33 32-47 33-34 33-76 34-35 36-37 36-41 36-50
37-38 38-39
39-40 39-45 40-41 40-48 41-49 43-85 43-88 44-53 46-54 47-55 48-52 49-51
56-57 56-61

```
56-71  57-58  57-72  58-59  58-73  59-60  59-82  60-61  62-63  62-67  62-76  63-64
64-65  65-66
65-71  66-67  66-74  67-75  69-84  69-89  70-79  72-80  73-81  74-78  75-77
exact bonds :
8-15  10-16  15-17  35-42  37-43  42-44  61-68  63-69  68-70


G1:SO3H,Ak

G2

Match level :
3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom  11:Atom  12:Atom
13:Atom  14:Atom  15:CLASS  16:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
21:CLASS  22:CLASS
23:CLASS  24:CLASS  25:CLASS  26:CLASS  27:CLASS  28:CLASS  29:CLASS  30:Atom
31:Atom  32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:CLASS
43:CLASS
44:CLASS  45:CLASS  46:CLASS  47:CLASS  48:CLASS  49:CLASS  50:CLASS  51:CLASS
52:CLASS  53:CLASS
54:CLASS  55:CLASS  56:Atom  57:Atom  58:Atom  59:Atom  60:Atom  61:Atom  62:Atom
63:Atom  64:Atom
65:Atom  66:Atom  67:Atom  68:CLASS  69:CLASS  70:CLASS  71:CLASS  72:CLASS
73:CLASS  74:CLASS
75:CLASS  76:CLASS  77:CLASS  78:CLASS  79:CLASS  80:CLASS  81:CLASS  82:CLASS
84:CLASS  85:CLASS
86:CLASS  87:CLASS  88:CLASS  89:CLASS



L3      STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l3
SAMPLE SEARCH INITIATED 15:19:54 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      478 TO ITERATE

100.0% PROCESSED      478 ITERATIONS                              1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE   **COMPLETE**
                        BATCH    **COMPLETE**
PROJECTED ITERATIONS:          8249 TO    10871
PROJECTED ANSWERS:                1 TO       80

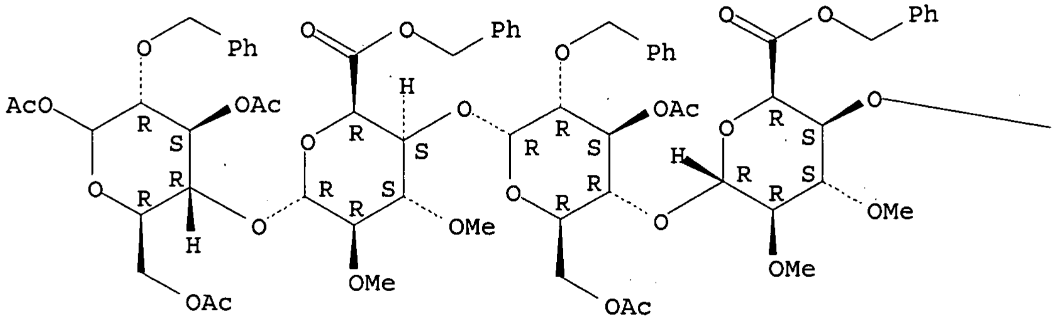
L4            1 SEA SSS SAM L3

=> d l4 scan

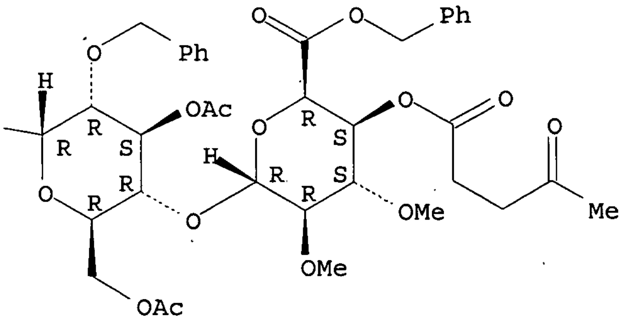
L4   1 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-
     α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-
     (phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-
     (phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-
     O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-
     (phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-
     , triacetate (9CI)
MF   C103 H124 O43

Absolute stereochemistry.
```

PAGE 1-A



PAGE 1-B



```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


ALL ANSWERS HAVE BEEN SCANNED


=> s l3 sss full
FULL SEARCH INITIATED 15:20:15 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    10286 TO ITERATE

100.0% PROCESSED    10286 ITERATIONS                          16 ANSWERS
SEARCH TIME: 00.00.01

L5            16 SEA SSS FUL L3

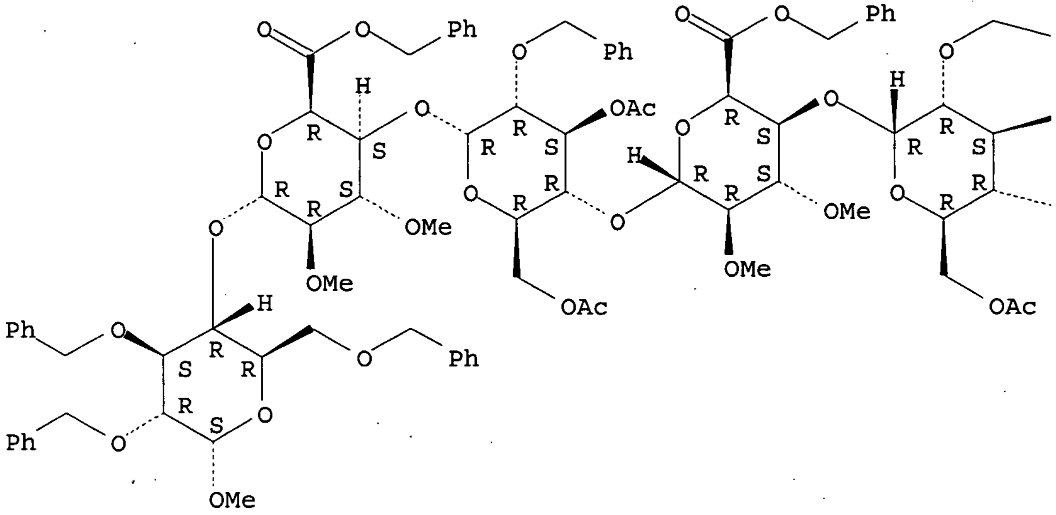
=> d l5 scan

L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
```

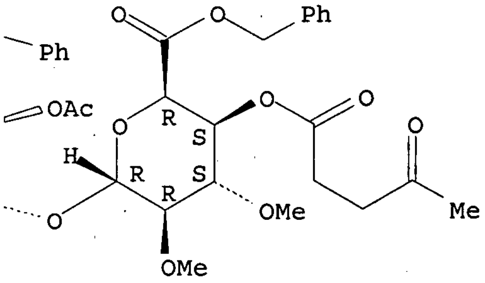
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-
     (phenylmethyl)- (9CI)
MF   C112 H132 O40

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

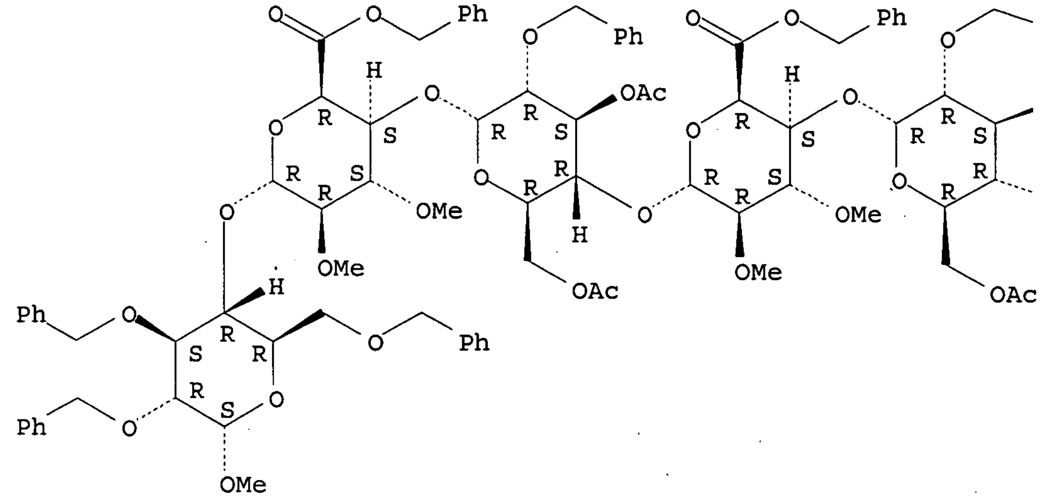
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):15

L5   16 ANSWERS   REGISTRY COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
     6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-

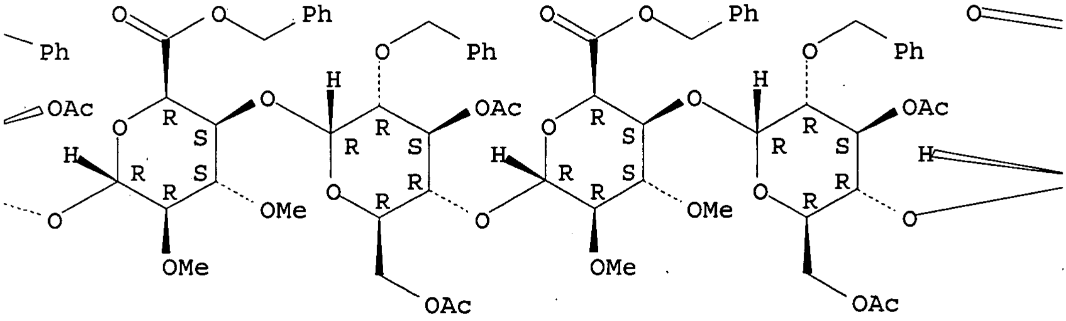
methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-
O-(phenylmethyl)- (9CI)
MF C176 H208 O66

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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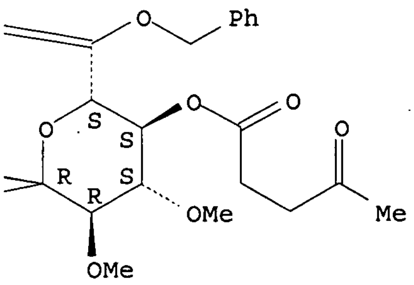


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

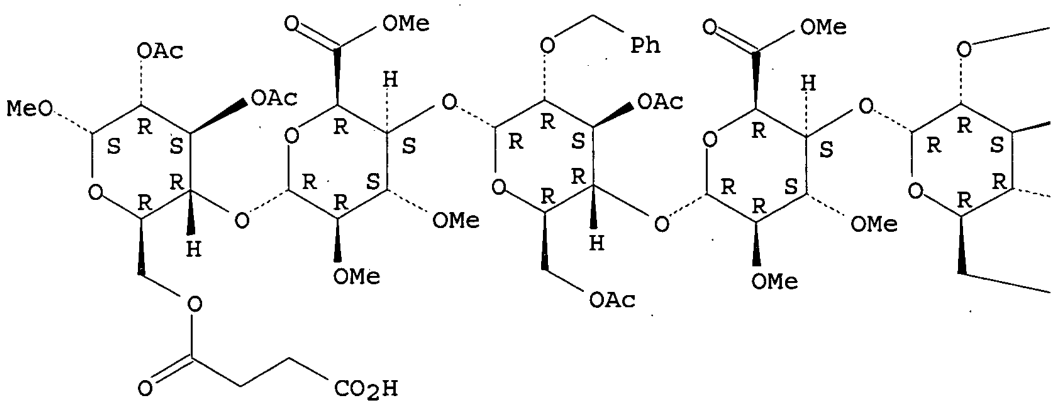
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)

MF C133 H178 O71

Absolute stereochemistry.

PAGE 1-A



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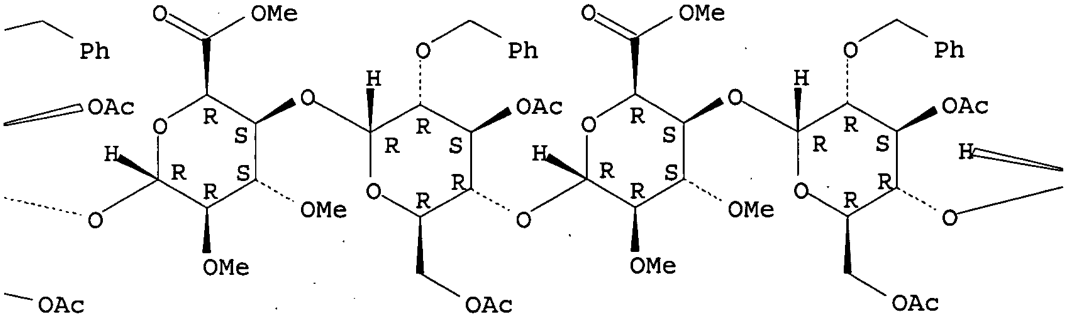
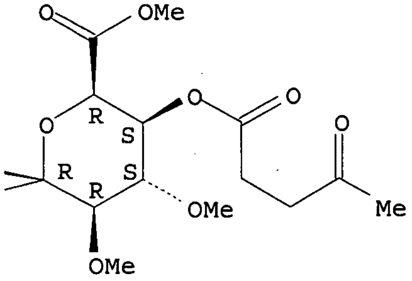




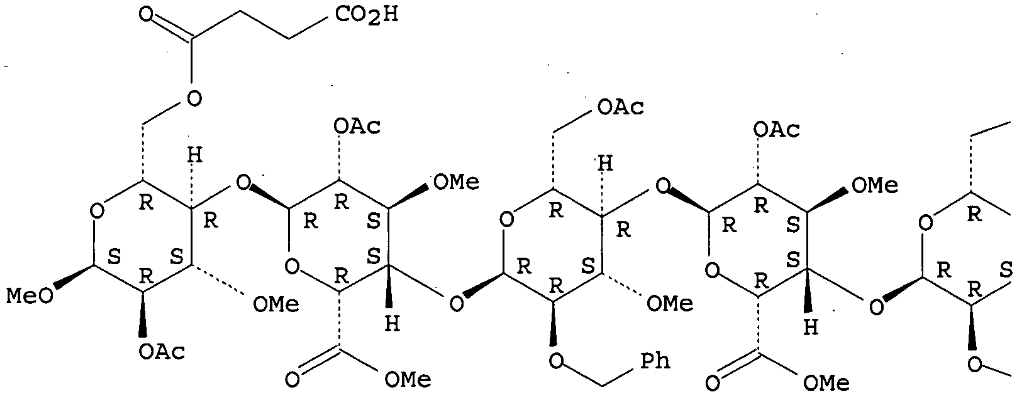
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

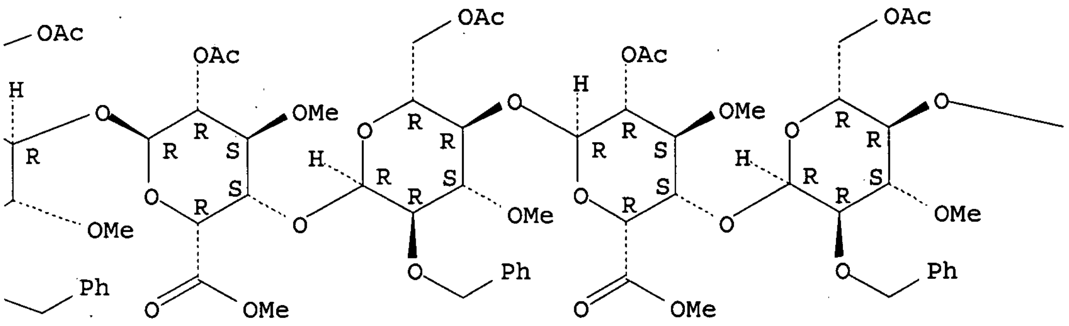
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)

MF C159 H212 O84

Absolute stereochemistry.





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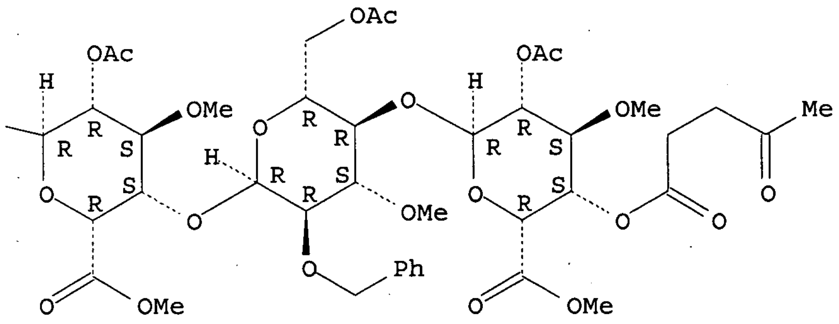


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

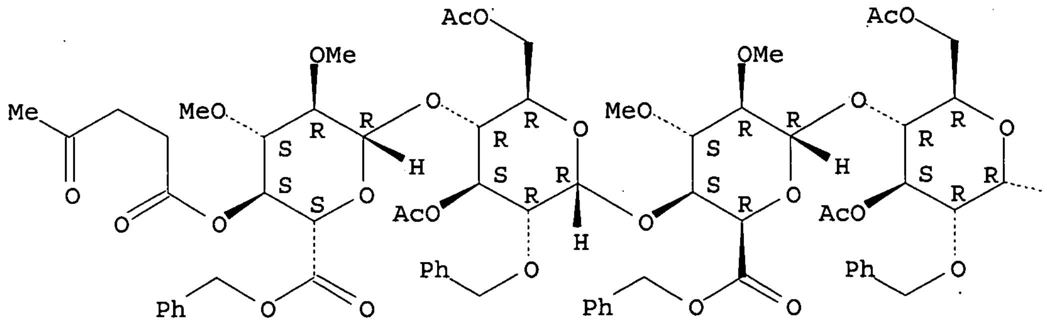
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-(phenylmethyl)- (9CI)

MF $C_{144} H_{170} O_{53}$

Absolute stereochemistry.

PAGE 1-A



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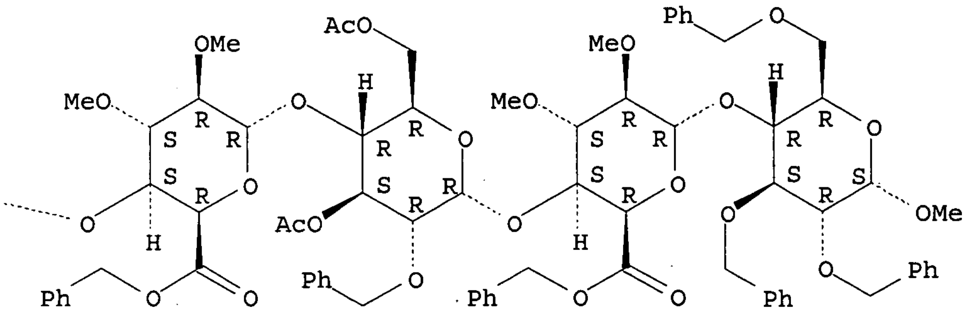
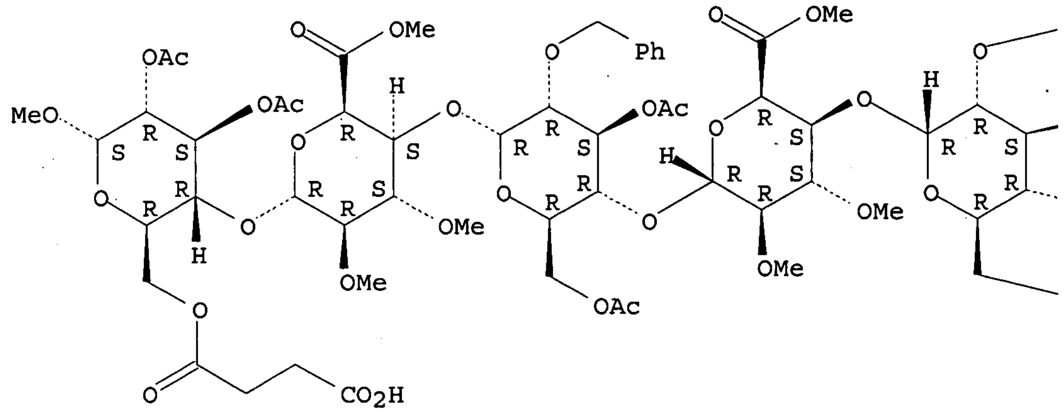


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

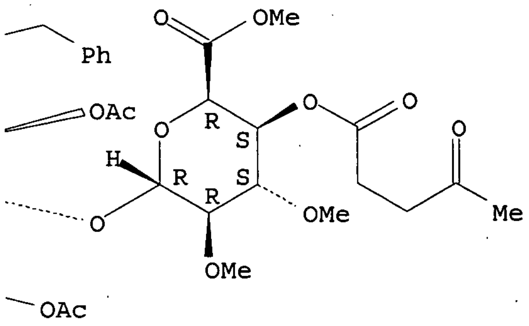
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)
MF $C_{81}H_{110}O_{45}$

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

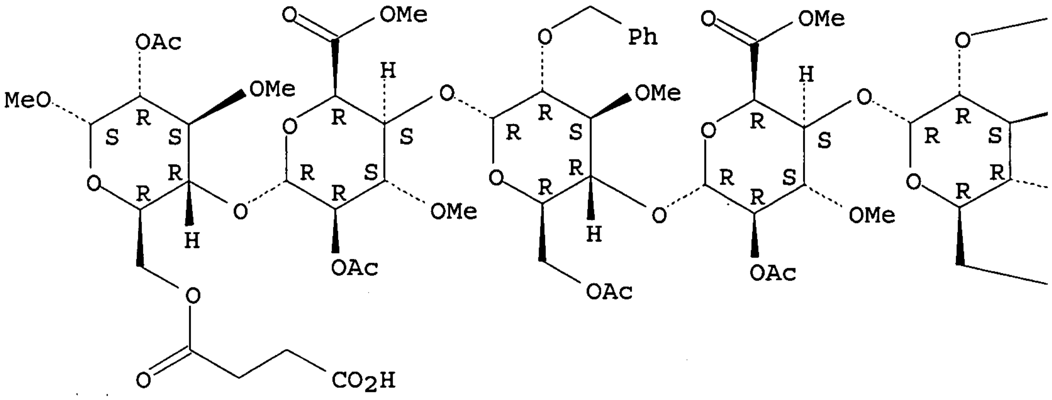


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

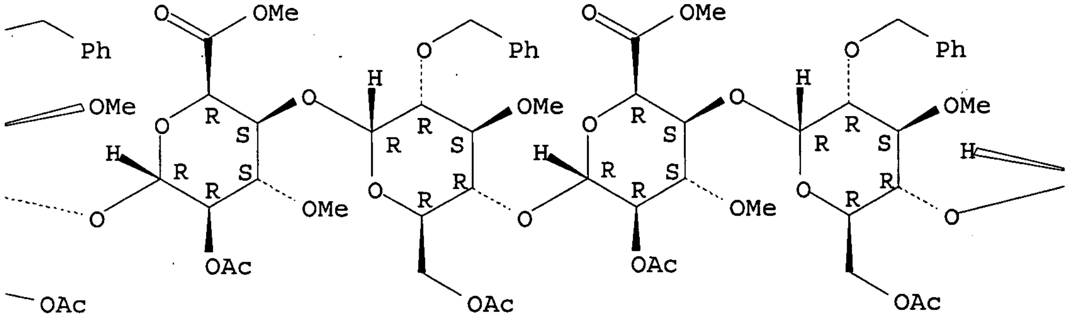
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-
methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-
methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-
acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-
acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-
O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-
6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-
(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-
(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-
glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-
idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen
butanedioate) (9CI)
MF C133 H178 O71

Absolute stereochemistry.

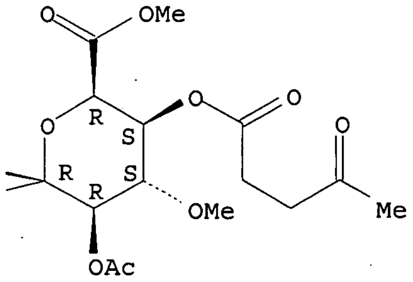
PAGE 1-A



PAGE 1-B



PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

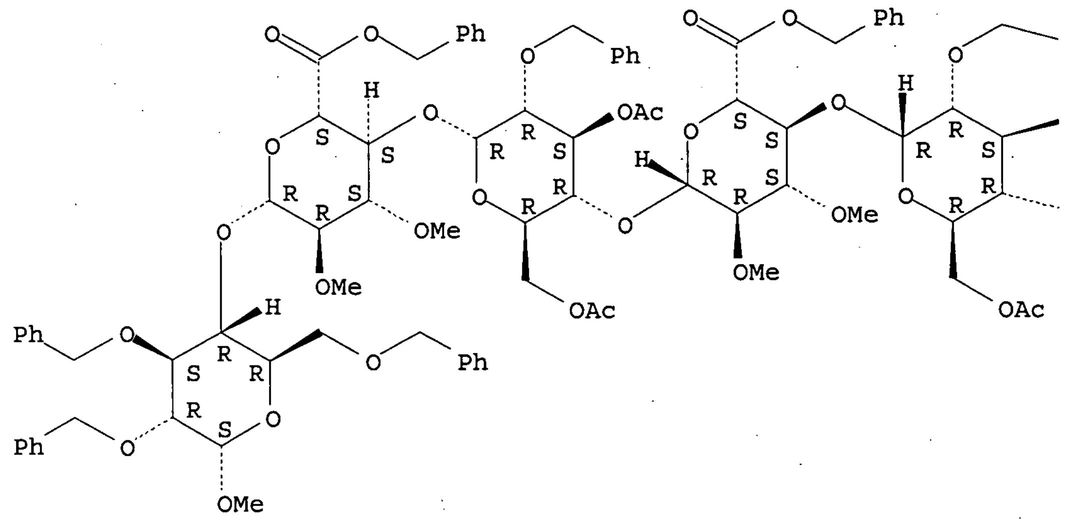
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-
acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-
O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-
O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-2,3,6-

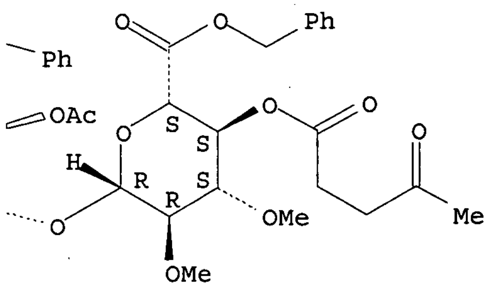
tris-O-(phenylmethyl)- (9CI)
MF C112 H132 O40

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 1-B

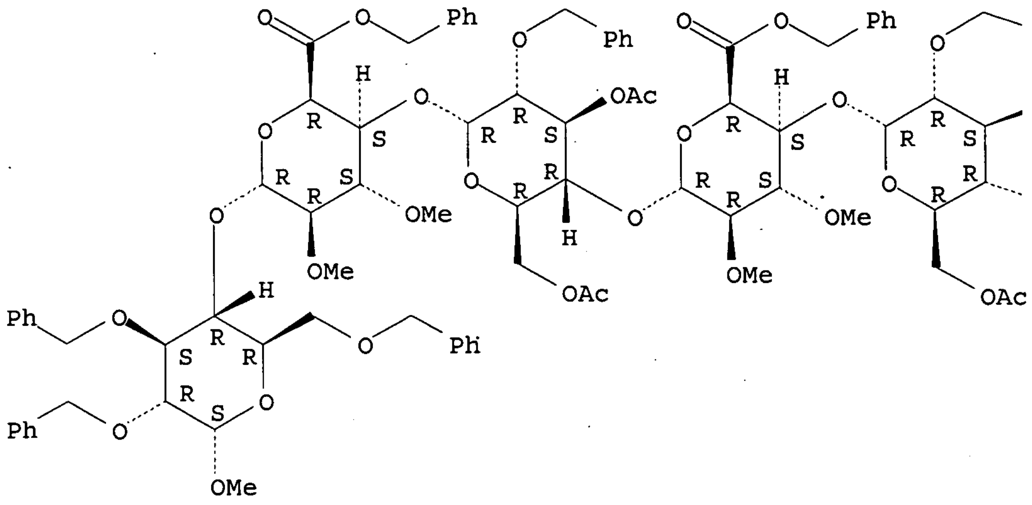


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-
(phenylmethyl)- (9CI)
MF C176 H208 O66

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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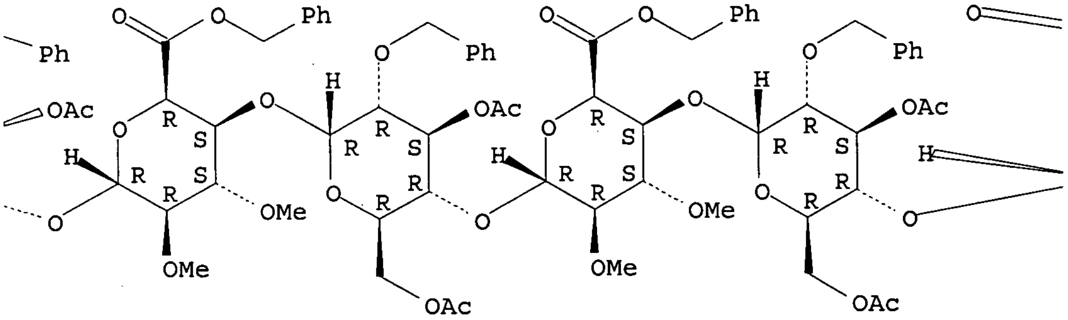

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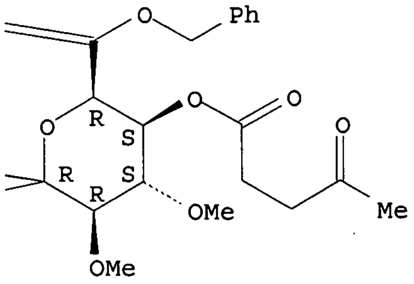


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

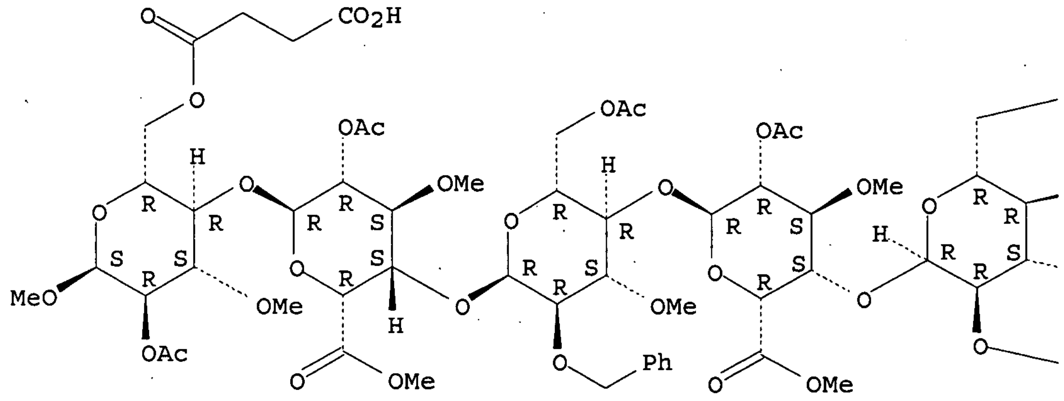
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-

methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)

MF C107 H144 O58

Absolute stereochemistry.

PAGE 1-A



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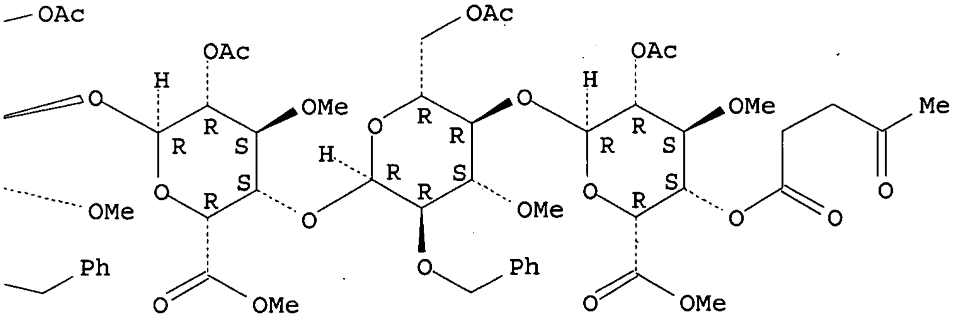


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

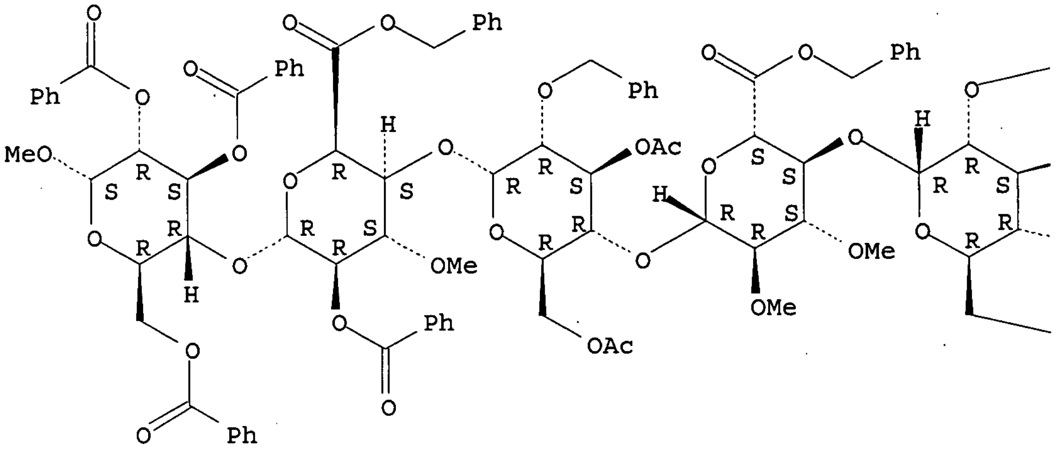
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-benzoyl-3-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-, tribenzoate (9CI)

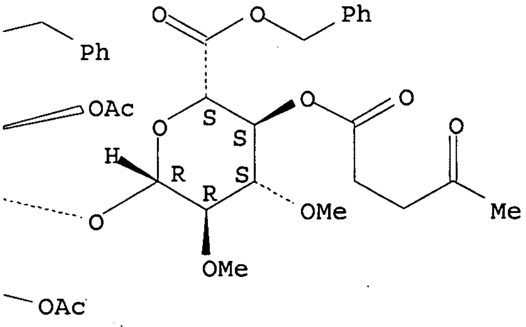
MF   C118 H128 O44

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 1-B

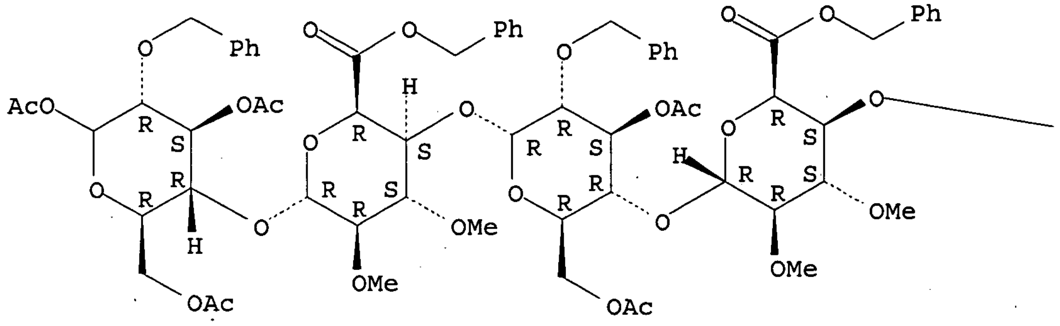


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

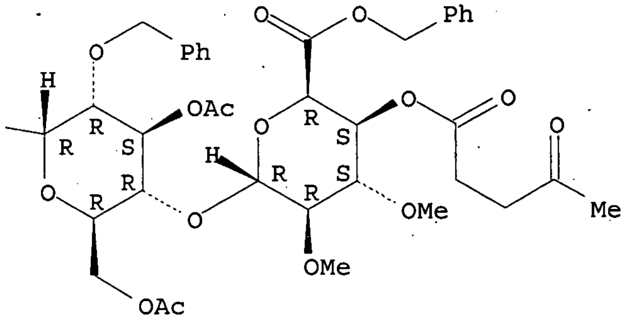
L5   16 ANSWERS   REGISTRY COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, triacetate (9CI)
MF   C103 H124 O43

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

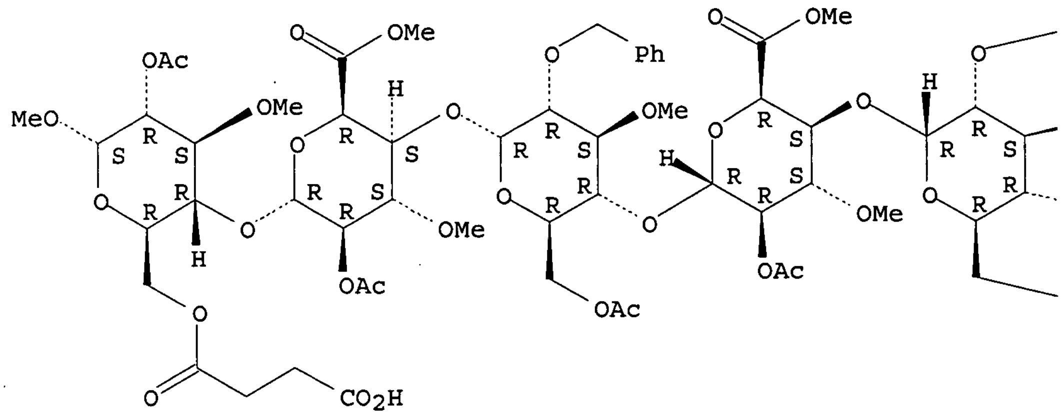


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5   16 ANSWERS   REGISTRY   COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-
methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-
methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-
acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-
acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-
O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-
O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)
MF   C81 H110 O45

Absolute stereochemistry.

PAGE 1-A



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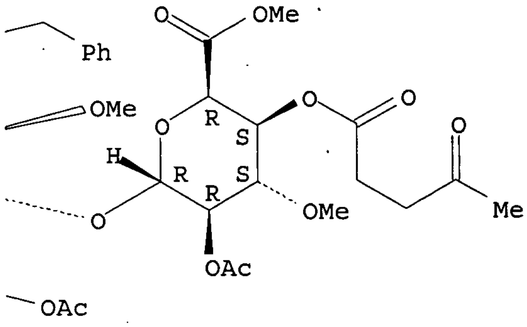
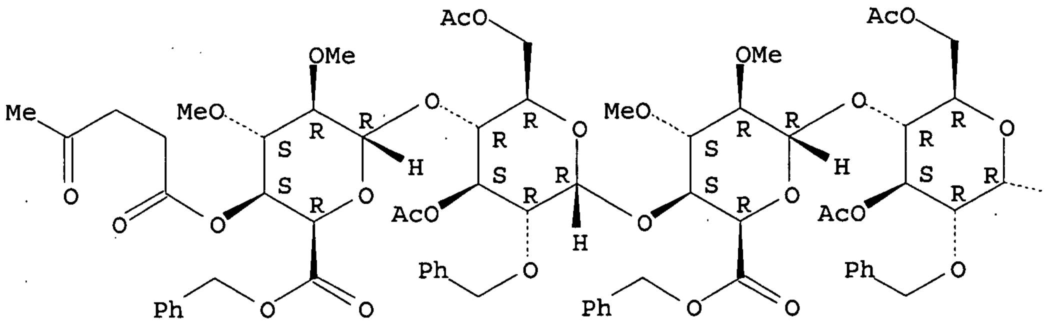


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

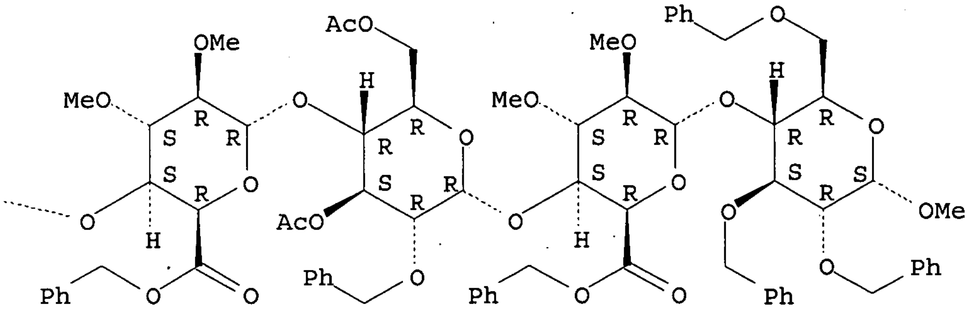
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-(phenylmethyl)- (9CI)
MF $C_{144}H_{170}O_{53}$

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 1-B

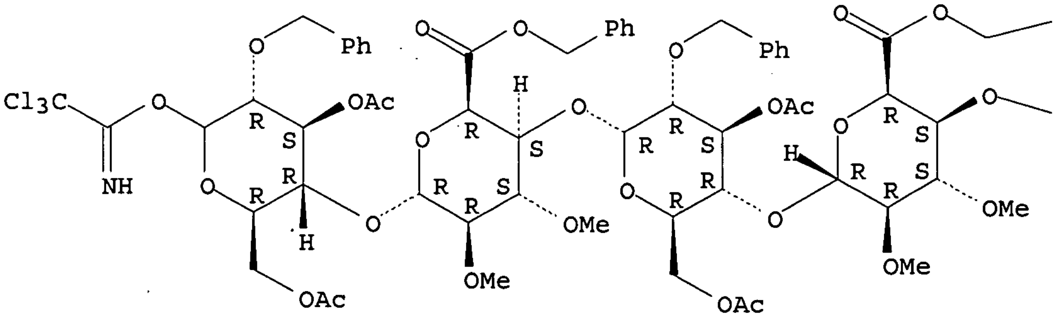


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5   16 ANSWERS   REGISTRY   COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, 3,6-diacetate 1-(2,2,2-trichloroethanimidate) (9CI)
MF   C103 H122 Cl3 N O42

Absolute stereochemistry.

PAGE 1-A



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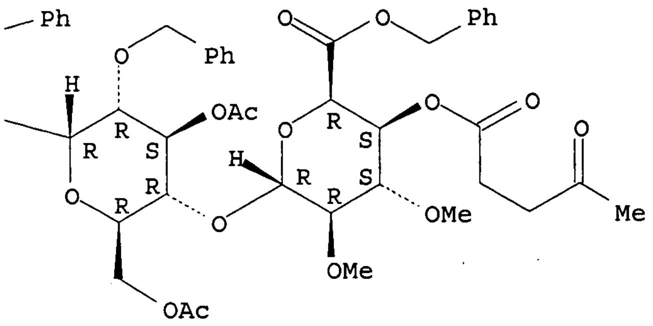


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

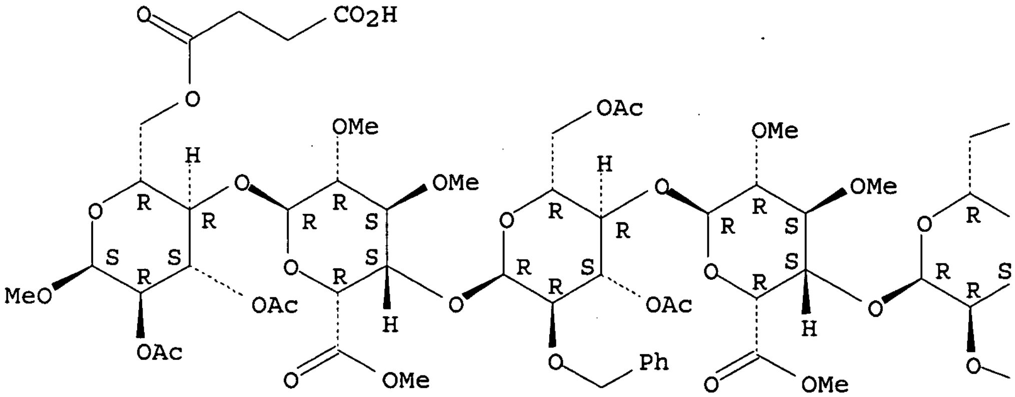
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)

MF $C_{159}H_{212}O_{84}$

Absolute stereochemistry.

PAGE 1-A



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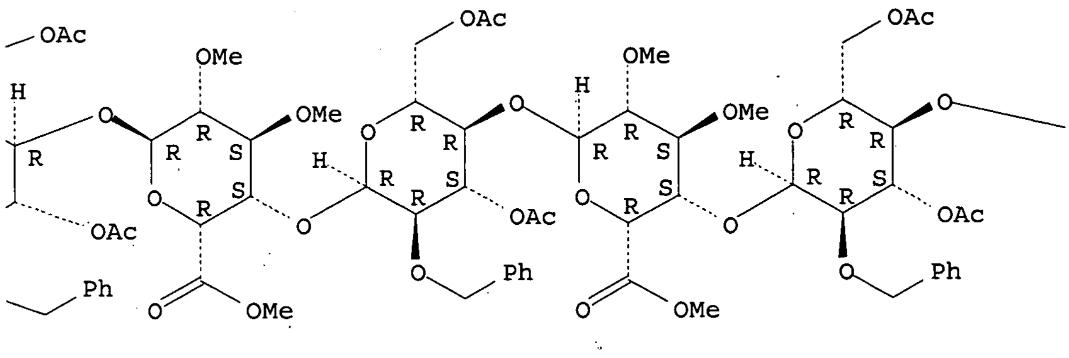

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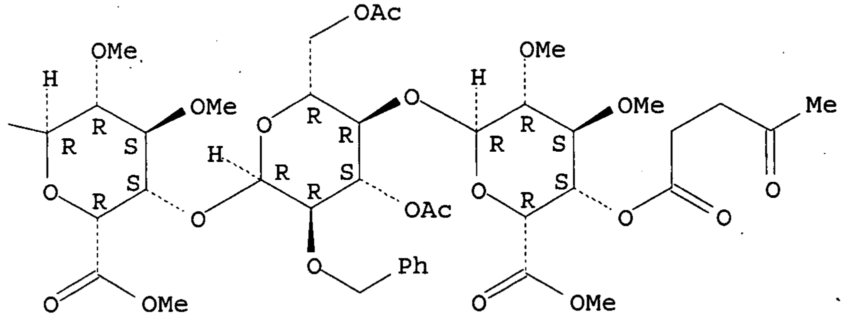

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                                                   ENTRY     SESSION
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L6            6 L5

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        6462177 PY>2000
L7            5 L6 NOT PY>2000

=> d l6 1-6 ti abs bib

L6    ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI    Identification of a hexasaccharide sequence suitable for polymerization
      with a view to thrombin inhibition. [Erratum to document cited in
      CA131:228904]
AB    The title has been corrected from "Identification of a hexasaccharide sequence
      able to inhibit thrombin and suitable for polymerization" to "Identification
of a
      hexasaccharide sequence suitable for polymerization with a view to thrombin
      inhibition.".
AN    2000:253318  CAPLUS <<LOGINID::20061106>>
DN    134:193655
TI    Identification of a hexasaccharide sequence suitable for polymerization
      with a view to thrombin inhibition. [Erratum to document cited in
      CA131:228904]
AU    Duchaussoy, P.; Jaurand, G.; Driguez, P.-A.; Lederman, I.; Gourvenec, F.;
      Strassel, J.-M.; Sizun, P.; Petitou, M.; Herbert, J.-M.
CS    Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO    Carbohydrate Research (2000), 325(4), 321
      CODEN: CRBRAT; ISSN: 0008-6215
PB    Elsevier Science Ltd.
DT    Journal
LA    English

L6    ANSWER 2 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI    "Design and synthesis of heparin mimetics able to inhibit thrombin". Part
      2 assessment through chemical synthesis of the size of the heparin
      sequence involved in thrombin inhibition
AB    Deca- to eicosasaccharides having the generic structure methyl(sodium
      2,3-di-O-methyl-4-O-sodium sulfonato-α-L-idopyranosyluronate)-
      (1→4)-[(2,3,6-tri-O-sodium sulfonato-α-D-glucopyranosyl)-
      (1→4)-(sodium 2,3-di-O-methyl-α-L-idopyranosyluronate)-
      (1→4)]n-2,3,6-tri-O-sodium sulfonato-α-D-glucopyranoside have
      been synthesized from a single disaccharide precursor.  All of them bind
      to and activate antithrombin.  When n ≤ 6 only Factor Xa inhibition
      is observed, whereas when n > 6 Factor Xa and thrombin are both inhibited in
      the presence of antithrombin.  These results indicate that, in heparin,
      the sequence involved in antithrombin-catalyzed thrombin inhibition is a
      pentadecaor a hexadecasaccharide.
AN    1999:492122  CAPLUS <<LOGINID::20061106>>
DN    131:257771
TI    "Design and synthesis of heparin mimetics able to inhibit thrombin". Part
      2 assessment through chemical synthesis of the size of the heparin
```

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         sequence involved in thrombin inhibition
AU       Duchaussoy, Philippe; Jaurand, Guy; Driguez, Pierre-A.; Lederman, Isidore;
         Ceccato, Marie-L.; Gourvenec, Francoise; Strassel, Jean-M.; Sizun,
         Philippe; Petitou, Maurice; Herbert, Jean-M.
CS       Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO       Carbohydrate Research (1999), 317(1-4), 85-99
         CODEN: CRBRAT; ISSN: 0008-6215
PB       Elsevier Science Ltd.
DT       Journal
LA       English
RE.CNT   18     THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6       ANSWER 3 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI       Design and synthesis of heparin mimetics able to inhibit thrombin. Part 1.
         Identification of a hexasaccharide sequence able to inhibit thrombin and
         suitable for "polymerization"
AB       Three hexasaccharides, having from low to very high affinity for
         antithrombin, were synthesized from disaccharide building block
         precursors.  One of them, methyl(sodium 2,3-di-O-methyl-4-O-sodium
         sulfonato-α-L-idopyranosyluronate)-(1→4)-[(2,3,6-tri-O-sodium
         sulfonato-α-D-glucopyranosyl)-(1→4)-(sodium
         2,3-di-O-methyl-α-L-idopyranosyluronate)-(1→4)]2-2,3,6-tri-O-
         sodium sulfonato-α-D-glucopyranoside, obtainable from a single
         disaccharide building block precursor, constitutes a good starting point
         for obtaining simple oligosaccharidic heparin mimetics able to inhibit the
         two coagulation factors, thrombin and Factor Xa.
AN       1999:492121  CAPLUS <<LOGINID::20061106>>
DN       131:228904
TI       Design and synthesis of heparin mimetics able to inhibit thrombin. Part 1.
         Identification of a hexasaccharide sequence able to inhibit thrombin and
         suitable for "polymerization"
AU       Duchaussoy, Philippe; Jaurand, Guy; Driguez, Pierre-A.; Lederman, Isidore;
         Gourvenec, Francoise; Strassel, Jean-M.; Sizun, Philippe; Petitou,
         Maurice; Herbert, Jean-M.
CS       Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO       Carbohydrate Research (1999), 317(1-4), 63-84
         CODEN: CRBRAT; ISSN: 0008-6215
PB       Elsevier Science Ltd.
DT       Journal
LA       English
RE.CNT   22     THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6       ANSWER 4 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI       First synthetic carbohydrates with the full anticoagulant properties of
         heparin
AB       Using the imidate glycosylation procedure, the authors have synthesized
         oligosaccharide mols. displaying the dual (anti-factor Xa and
         anti-thrombin) activity of heparin mediated by AT III.  "Non-glycosamino"
         glycan heparin analogs, where N-sulfonato substituents were replaced by
         O-sulfonato groups and -OH groups were alkylated, which preserve the
         specific binding to AT III, yet simplify synthesis, were used.  Repetitive
         block synthesis, using disaccharide synthons, gave hexa- to
         eicosa-saccharides, which were tested for biol. activity in thrombin or
         factor Xa inhibition.  Regarding the long standing question about the min.
         size of heparin fragments able to catalyze thrombin inhibition, the
         present data restrict the choice to a pentadeca- or hexadeca-saccharide.
AN       1998:794792  CAPLUS <<LOGINID::20061106>>
DN       130:110506
TI       First synthetic carbohydrates with the full anticoagulant properties of
         heparin
AU       Petitou, Maurice; Duchaussoy, Philippe; Driguez, Pierre-A.; Jaurand, Guy;
         Herault, Jean-P.; Lormeau, Jean-C.; Van Boeckel, Constant A. A.; Herbert,
     Jean-M.
CS   Haemobiology Research Department, Sanofi Recherche, Toulouse, F-31036, Fr.
SO   Angewandte Chemie, International Edition (1998), 37(21), 3009-3014
     CODEN: ACIEF5; ISSN: 1433-7851
PB   Wiley-VCH Verlag GmbH
DT   Journal
LA   English
RE.CNT  29    THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6   ANSWER 5 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Preparation of synthetic polysaccharides for use in pharmaceutical
     compositions
AB   Polysaccharides (d.p. 8-24) comprising concatenations of disaccharides
     consisting of a uronic acid and a hexose (all OH groups being etherified
     with C1-6 alkyl groups or esterified with sulfonic acids) and their salts
     are prepared for use in pharmaceuticals (no data).  The preparation of
     polysaccharides with d.p. 2-10 and their intermediates is described.
AN   1998:15784  CAPLUS <<LOGINID::20061106>>
DN   128:90258
TI   Preparation of synthetic polysaccharides for use in pharmaceutical
     compositions
IN   Duchaussoy, Philippe; Herbert, Jean-Marc; Jaurand, Guy; Petitou, Maurice;
     Van Boeckel, Constant
PA   Sanofi, Fr.; Akzo Nobel N.V.
SO   PCT Int. Appl., 70 pp.
     CODEN: PIXXD2
DT   Patent
LA   French
FAN.CNT 1
     PATENT NO.          KIND   DATE          APPLICATION NO.         DATE
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     FR 2749849           B1    19980904
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     CA 2258146           C     20031007
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     EP 904299            A1    19990331      EP 1997-928337           19970611
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     AT 204883            E     20010915      AT 1997-928337           19970611
     ES 2163171           T3    20020116      ES 1997-928337           19970611
     PT 904299            T     20020228      PT 1997-928337           19970611
     MX 9810514           A     20000630      MX 1998-10514            19981210
     NO 9805831           A     19990211      NO 1998-5831             19981211
     NO 319037            B1    20050606
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PRAI FR 1996-7457         A     19960614
     WO 1997-FR1048       W     19970611
     US 1998-202241       B1    19981210
     US 2000-686373       B1    20001011
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OS    MARPAT 128:90258

L6    ANSWER 6 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI    Polymer-supported solution synthesis of heparan sulfate-like oligomers
AB    The polyethylene glycol (PEG-polymer)-supported solution synthesis of heparan
      sulfate-like oligomers, which differ in length (up till 12-mers) and
      sulfation pattern, is described.
AN    1997:357323  CAPLUS <<LOGINID::20061106>>
DN    127:66056
TI    Polymer-supported solution synthesis of heparan sulfate-like oligomers
AU    Dreef-Tromp, C. M.; Willems, H. A. M.; Westerduin, P.; van Veelen, P.; van
      Boeckel, C. A. A.
CS    N.V. Organon Scientific Development Group, Oss, 5340 BH, Neth.
SO    Bioorganic & Medicinal Chemistry Letters (1997), 7(9), 1175-1180
      CODEN: BMCLE8; ISSN: 0960-894X
PB    Elsevier
DT    Journal
LA    English
RE.CNT  20    THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
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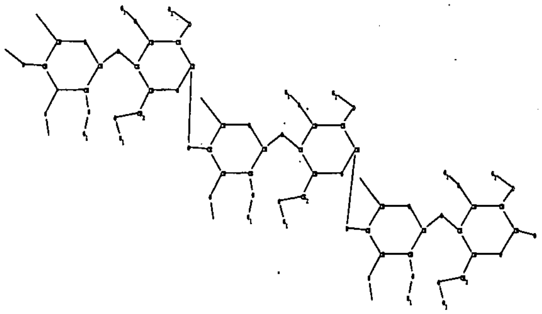

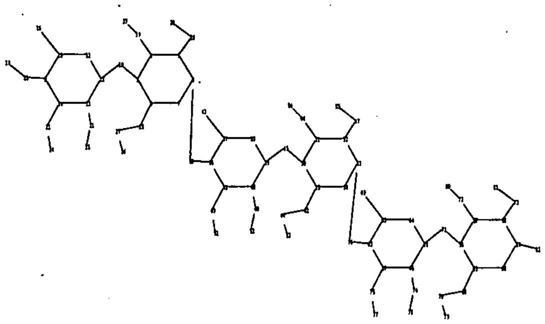

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81 82
ring nodes :
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exact/norm bonds :
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12-13 12-18 13-14 13-21 14-22 17-26 19-27 20-28 21-25 22-24 23-29 30-31
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66-74 67-75
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exact bonds :
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G1:CH3,SO3H,C

G2

Match level :
3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom  11:Atom  12:Atom
13:Atom  14:Atom  15:CLASS  16:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
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L1      STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1              STR

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100.0% PROCESSED      841 ITERATIONS                              15 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
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PROJECTED ITERATIONS:        15081 TO    18559
PROJECTED ANSWERS:              68 TO      532

L2          15 SEA SSS SAM L1

=> d l2 scan

L2    15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN    D-Glucopyranose, O-2,3,4,6-tetra-O-acetyl-α-D-glucopyranosyl-
      (1→4)-O-2,3,6-tri-O-acetyl-α-D-glucopyranosyl-(1→4)-O-
      2,3,6-tri-O-acetyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-
      acetyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-α-
      D-glucopyranosyl-(1→4)-, tetraacetate (9CI)
MF    C76 H102 O51

Absolute stereochemistry.
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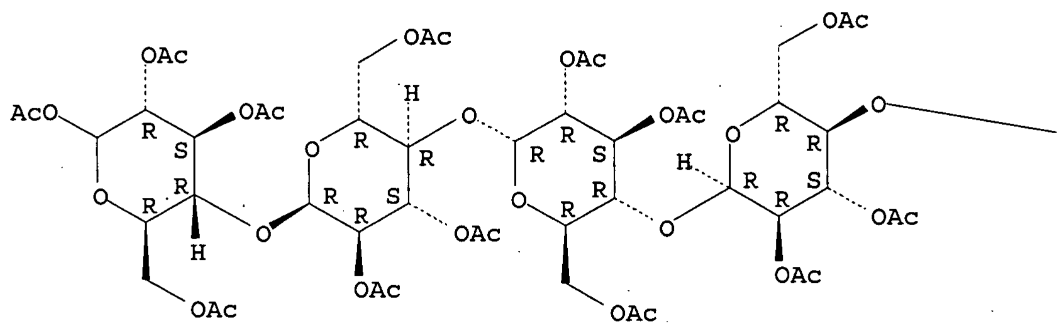
PAGE 1-A



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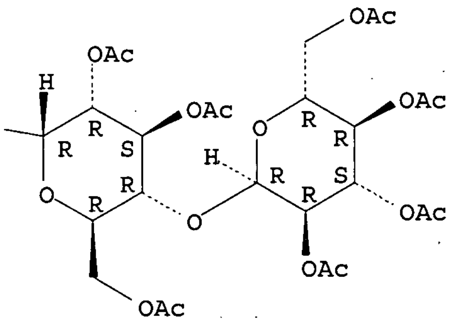

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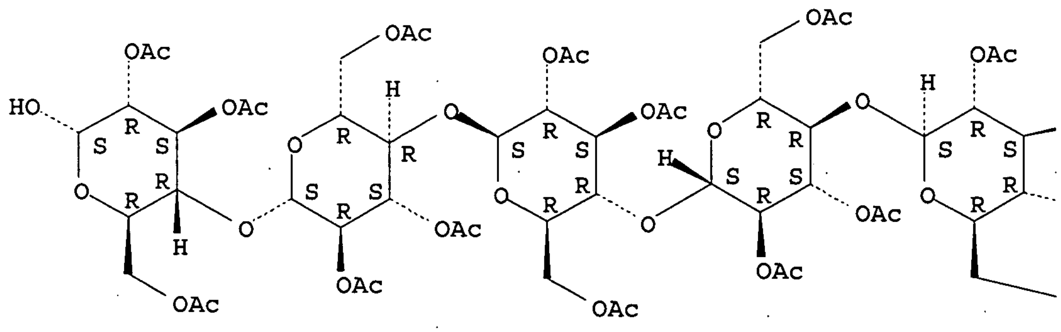
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L2   15 ANSWERS   REGISTRY COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranose, O-2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-, 2,3,6-triacetate (9CI)
MF   C74 H100 O50

Absolute stereochemistry. Rotation (-).

PAGE 1-A



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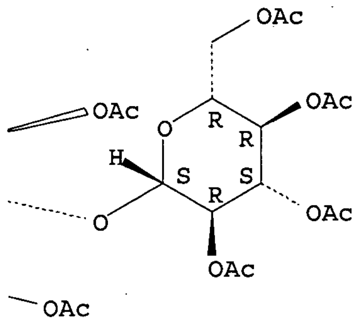

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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L2   15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   β-D-Glucopyranose, O-2,3,6-tri-O-acetyl-4-O-(2,2-dimethyl-1-
     oxopropyl)-β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-
     β-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-
     glucopyranosyl-(1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-
     (1→4)-O-2,3,6-tri-O-acetyl-β-D-glucopyranosyl-(1→4)-,
     2,3,6-triacetate 1-(2,2-dimethylpropanoate) (9CI)
MF   C82 H114 O51
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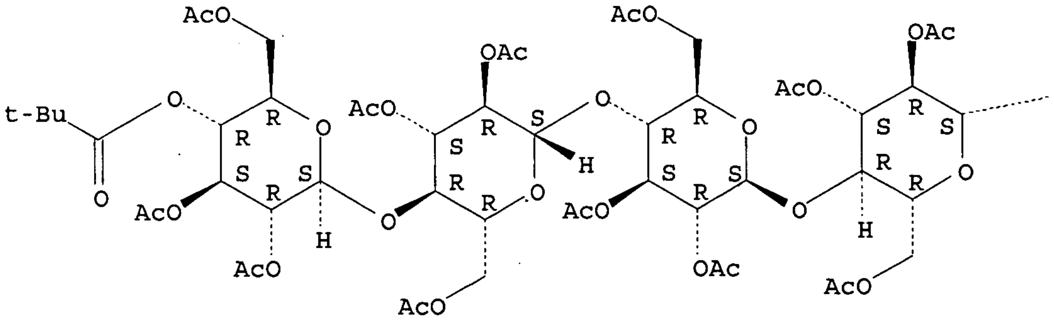
Absolute stereochemistry.

PAGE 1-A



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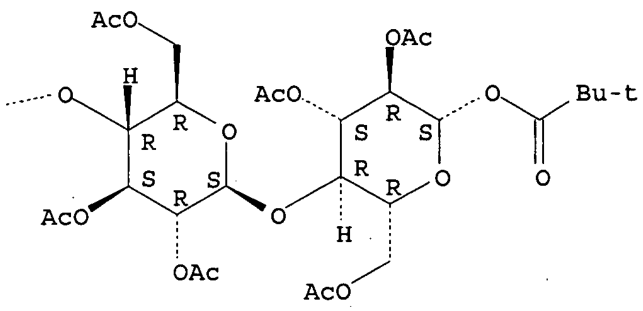
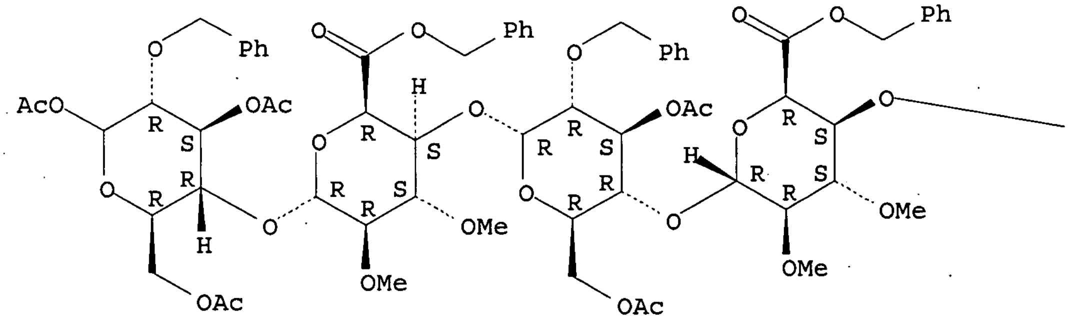


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

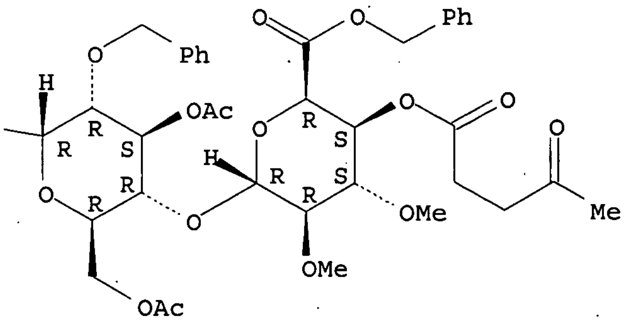
L2   15 ANSWERS   REGISTRY   COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, triacetate (9CI)
MF   C103 H124 O43

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

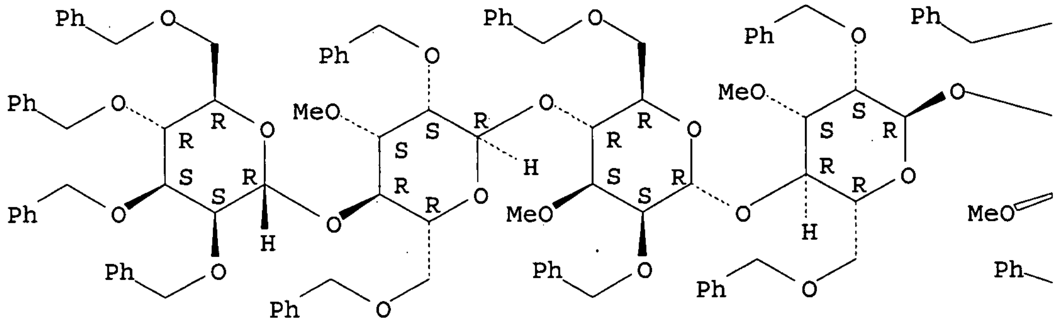


```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

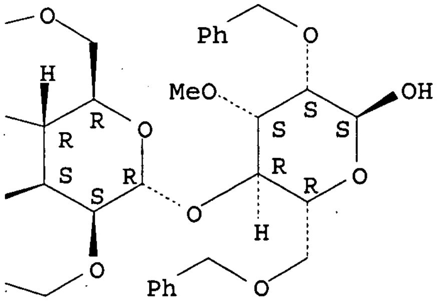

L2    15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN    α-D-Mannopyranose, O-2,3,4,6-tetrakis-O-(phenylmethyl)-α-D-
      mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-(phenylmethyl)-α-
      D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-(phenylmethyl)-
      α-D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-O-
      (phenylmethyl)-α-D-mannopyranosyl-(1→4)-O-3-O-methyl-2,6-bis-
      O-(phenylmethyl)-α-D-mannopyranosyl-(1→4)-3-O-methyl-2,6-bis-
      O-(phenylmethyl)- (9CI)
MF    C139 H156 O31

Absolute stereochemistry.  Rotation (+).
```

PAGE 1-A



PAGE 1-B



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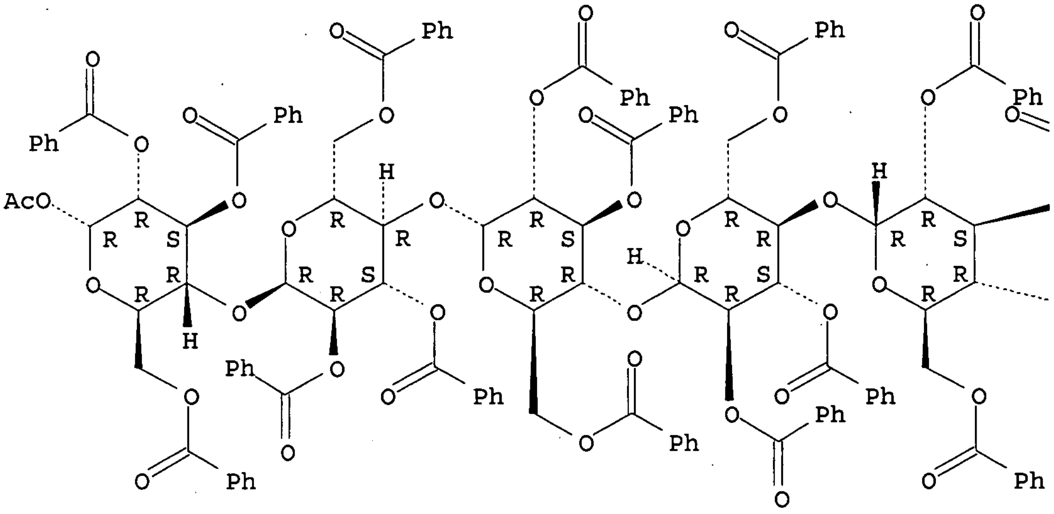
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

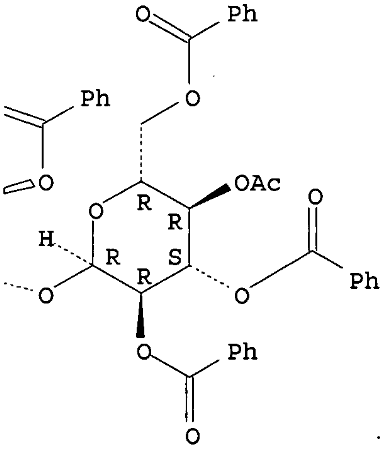

L2    15 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN    α-D-Glucopyranose, O-4-O-acetyl-2,3,6-tri-O-benzoyl-α-D-
      glucopyranosyl-(1→4)-O-2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-
      (1→4)-O-2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-(1→4)-O-
      2,3,6-tri-O-benzoyl-α-D-glucopyranosyl-(1→4)-O-2,3,6-tri-O-
      benzoyl-α-D-glucopyranosyl-(1→4)-, 1-acetate
      2,3,6-tribenzoate (9CI)
MF    C166 H138 O51
```

```
Absolute stereochemistry.  Rotation (+).
```

PAGE 1-A



PAGE 1-B



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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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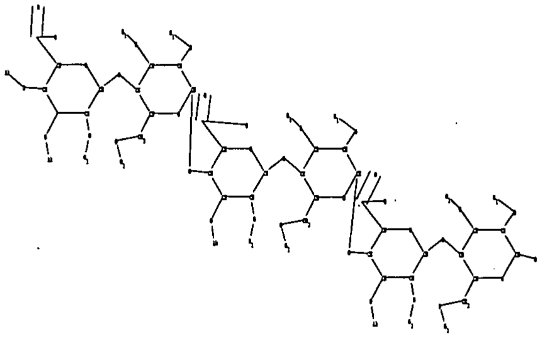

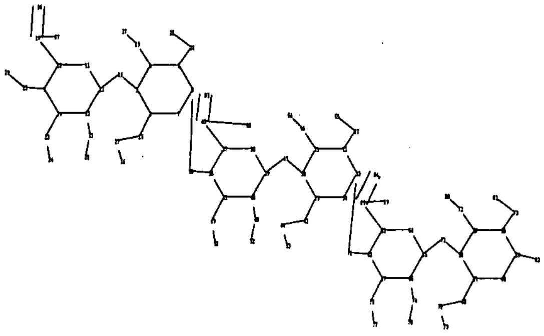

```
chain nodes :
15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  42  43  44  45  46  47
48  49  50  51  52  53  54  55  68  69  70  71  72  73  74  75  76  77  78  79  80
81  82  84
85  86  87  88  89
ring nodes :
3  4  5  6  7  8  9  10  11  12  13  14  30  31  32  33  34  35  36  37  38  39
40  41  56  57  58  59  60  61  62  63  64  65  66  67
chain bonds :
3-18  4-19  5-20  6-50  8-15  9-23  10-16  12-18  13-21  14-22  15-17  16-86  16-87
17-26  19-27  20-28  21-25  22-24  23-29  30-45  31-46  32-47  33-76  35-42  36-50
37-43  39-45
40-48  41-49  42-44  43-85  43-88  44-53  46-54  47-55  48-52  49-51  56-71  57-72
58-73  59-82
61-68  62-76  63-69  65-71  66-74  67-75  68-70  69-84  69-89  70-79  72-80  73-81
74-78  75-77

ring bonds :
3-4  3-8  4-5  5-6  6-7  7-8  9-10  9-14  10-11  11-12  12-13  13-14  30-31  30-35
31-32  32-33  33-34  34-35  36-37  36-41  37-38  38-39  39-40  40-41  56-57  56-61
57-58  58-59
59-60  60-61  62-63  62-67  63-64  64-65  65-66  66-67
exact/norm bonds :
3-4  3-8  3-18  4-5  4-19  5-6  5-20  6-7  6-50  7-8  9-10  9-14  9-23  10-11  11-12
12-13  12-18  13-14  13-21  14-22  16-86  16-87  17-26  19-27  20-28  21-25  22-24
23-29  30-31
30-35  30-45  31-32  31-46  32-33  32-47  33-34  33-76  34-35  36-37  36-41  36-50
37-38  38-39
39-40  39-45  40-41  40-48  41-49  43-85  43-88  44-53  46-54  47-55  48-52  49-51
56-57  56-61
```

```
56-71  57-58  57-72  58-59  58-73  59-60  59-82  60-61  62-63  62-67  62-76  63-64
64-65  65-66
65-71  66-67  66-74  67-75  69-84  69-89  70-79  72-80  73-81  74-78  75-77
exact bonds :
8-15  10-16  15-17  35-42  37-43  42-44  61-68  63-69  68-70


G1:SO3H,Ak

G2

Match level :
3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom  11:Atom  12:Atom
13:Atom  14:Atom  15:CLASS  16:CLASS  17:CLASS  18:CLASS  19:CLASS  20:CLASS
21:CLASS  22:CLASS
23:CLASS  24:CLASS  25:CLASS  26:CLASS  27:CLASS  28:CLASS  29:CLASS  30:Atom
31:Atom  32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:CLASS
43:CLASS
44:CLASS  45:CLASS  46:CLASS  47:CLASS  48:CLASS  49:CLASS  50:CLASS  51:CLASS
52:CLASS  53:CLASS
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63:Atom  64:Atom
65:Atom  66:Atom  67:Atom  68:CLASS  69:CLASS  70:CLASS  71:CLASS  72:CLASS
73:CLASS  74:CLASS
75:CLASS  76:CLASS  77:CLASS  78:CLASS  79:CLASS  80:CLASS  81:CLASS  82:CLASS
84:CLASS  85:CLASS
86:CLASS  87:CLASS  88:CLASS  89:CLASS



L3      STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l3
SAMPLE SEARCH INITIATED 15:19:54 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      478 TO ITERATE

100.0% PROCESSED      478 ITERATIONS                             1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         8249 TO    10871
PROJECTED ANSWERS:               1 TO       80

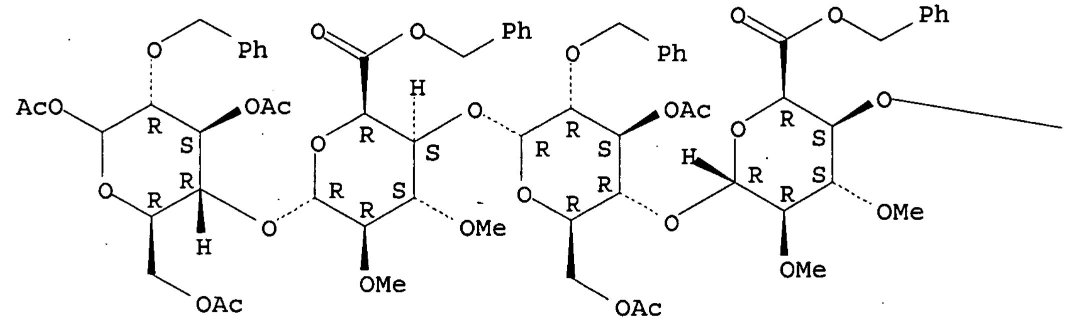
L4            1 SEA SSS SAM L3

=> d l4 scan

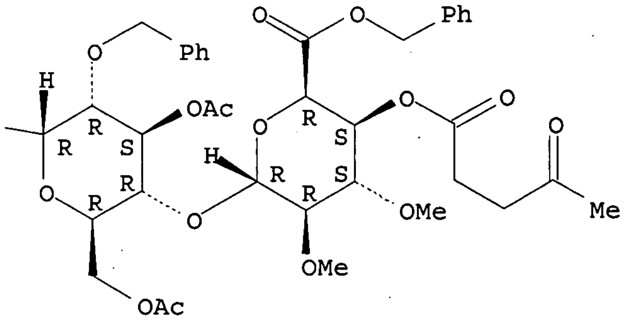
L4   1 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-
     α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-
     (phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-
     (phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-
     O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-
     (phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-
     , triacetate (9CI)
MF   C103 H124 O43

Absolute stereochemistry.
```

PAGE 1-A



PAGE 1-B



```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


ALL ANSWERS HAVE BEEN SCANNED


=> s l3 sss full
FULL SEARCH INITIATED 15:20:15 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    10286 TO ITERATE

100.0% PROCESSED    10286 ITERATIONS                              16 ANSWERS
SEARCH TIME: 00.00.01

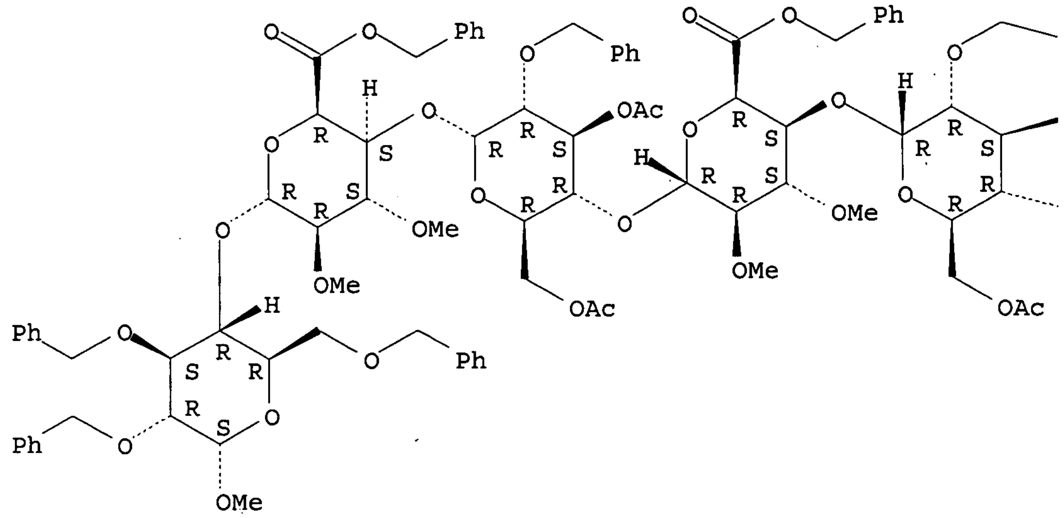
L5            16 SEA SSS FUL L3

=> d l5 scan

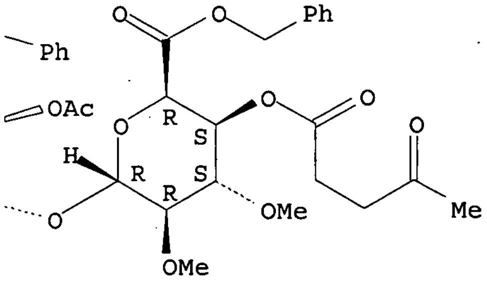
L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-
     (phenylmethyl)- (9CI)
MF   C112 H132 O40

Absolute stereochemistry.  Rotation (+).
```

PAGE 1-A



PAGE 1-B



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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):15

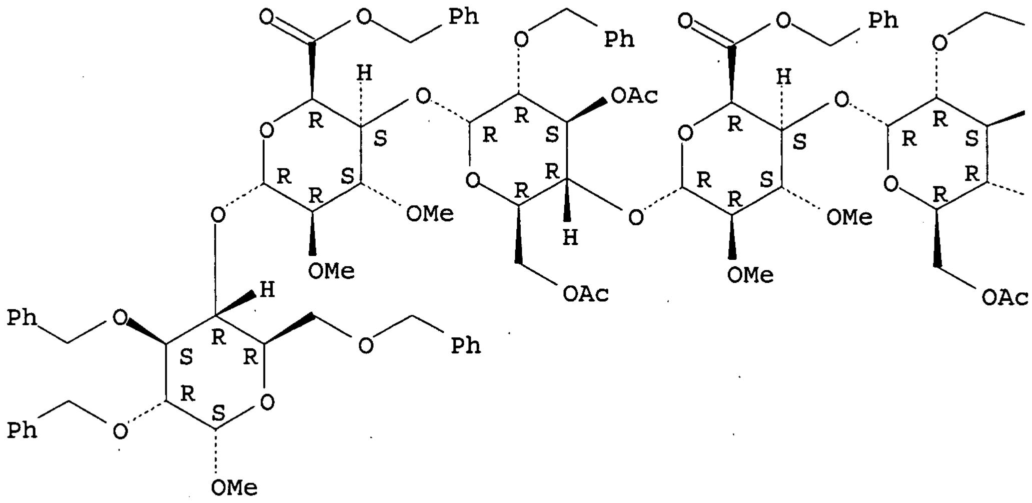
L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
     6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
     methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-
     acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
```

methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-
O-(phenylmethyl)- (9CI)

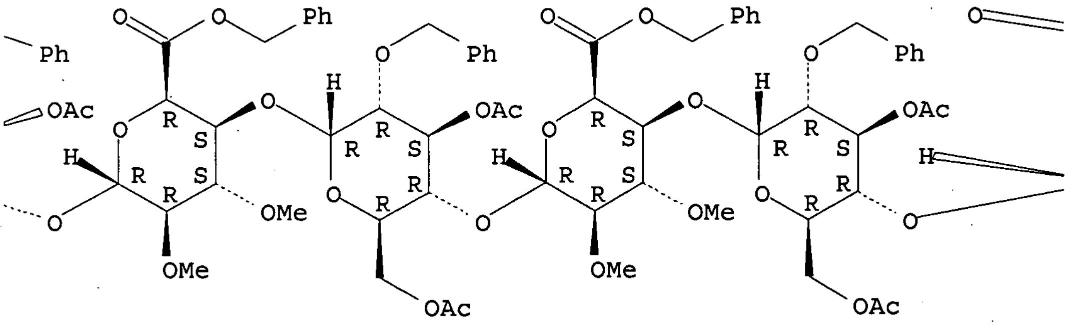
MF C176 H208 O66

Absolute stereochemistry.

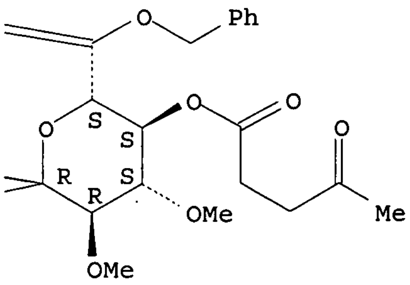
PAGE 1-A



PAGE 1-B



PAGE 1-C

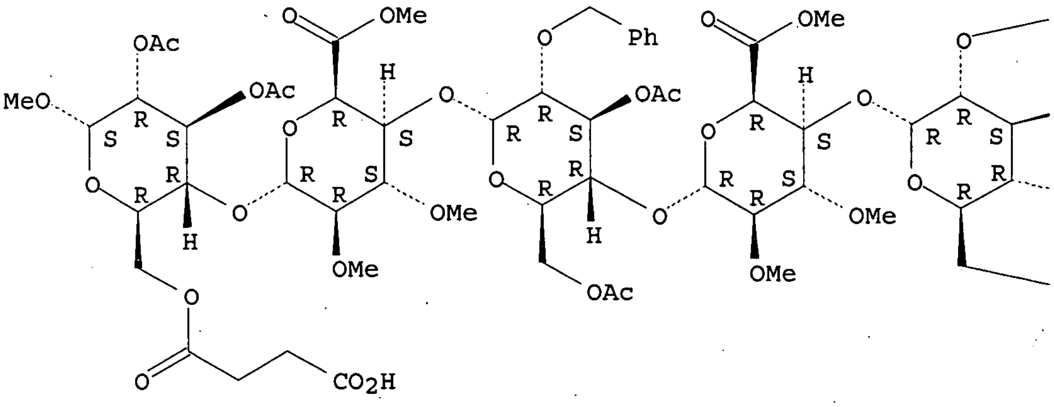


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

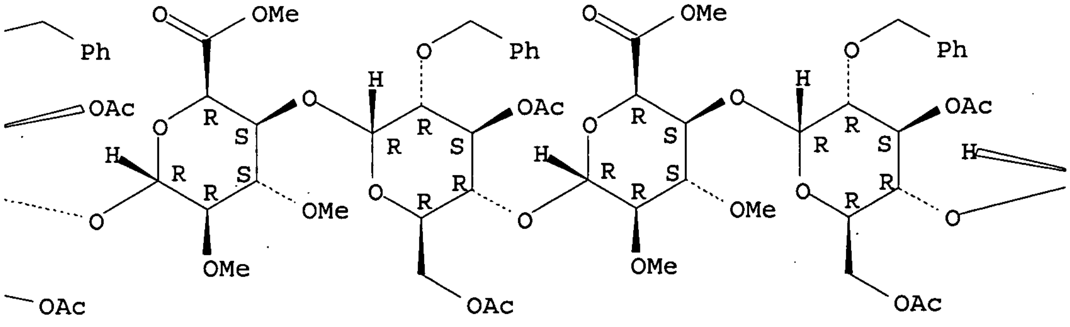
L5   16 ANSWERS   REGISTRY   COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)
MF   C133 H178 O71

Absolute stereochemistry.

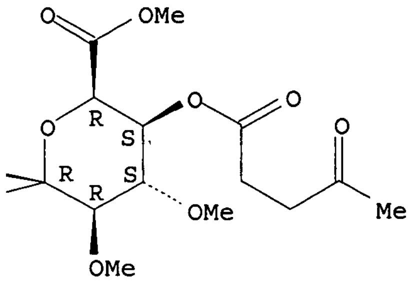
PAGE 1-A



PAGE 1-B



PAGE 1-C

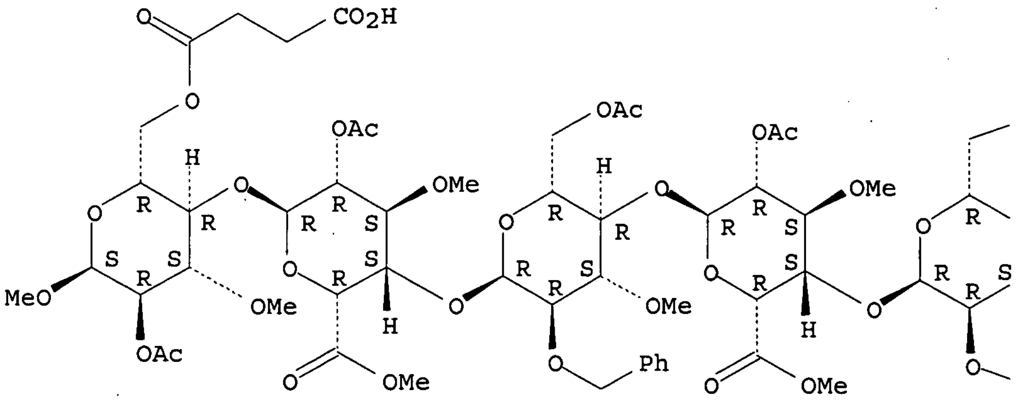


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

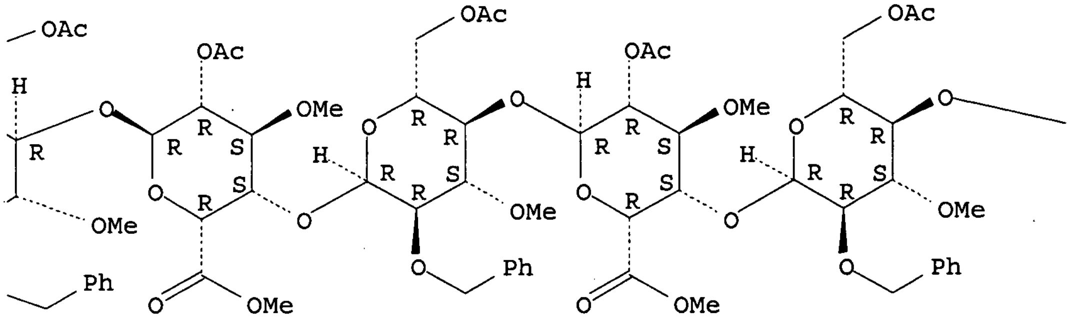
```
L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-
     methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-
     methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-
     acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-
     acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-
     O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-
     6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-
     (1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-
     (1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-
     glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-
     idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-
     α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-
     α-L-idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen
     butanedioate) (9CI)
MF   C159 H212 O84
```

Absolute stereochemistry.

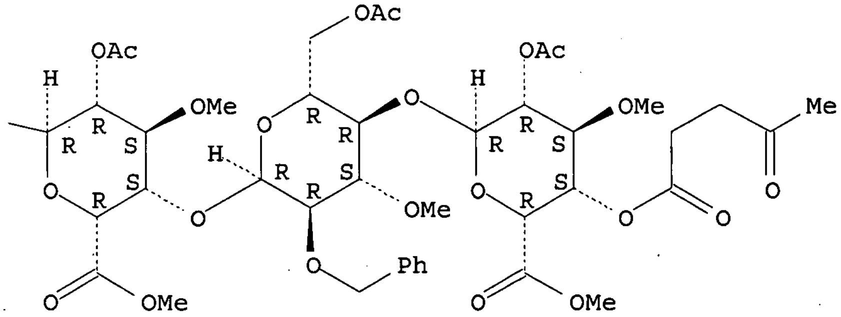
PAGE 1-A



PAGE 1-B



PAGE 1-C

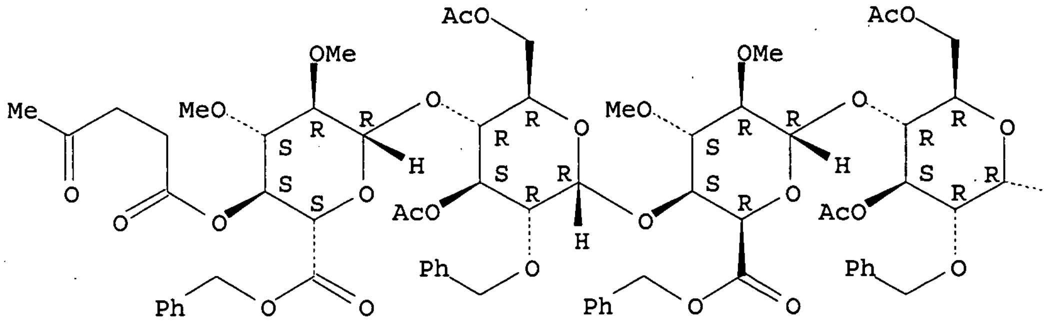


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

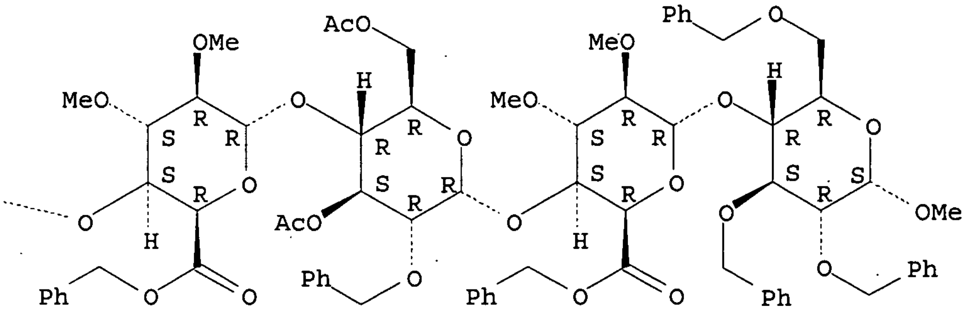
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-(phenylmethyl)- (9CI)
MF C144 H170 O53

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

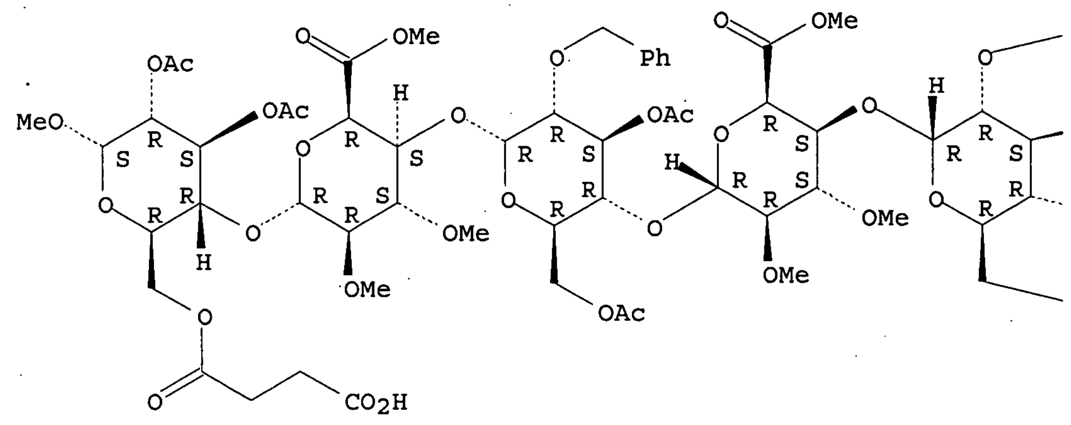


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

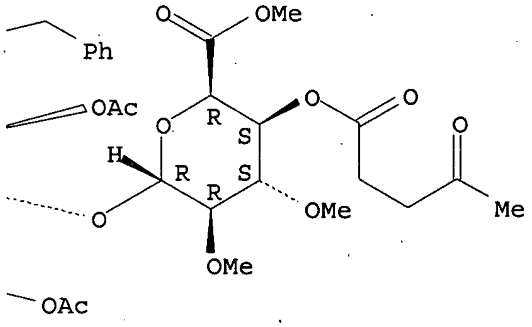
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)
MF C81 H110 O45

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

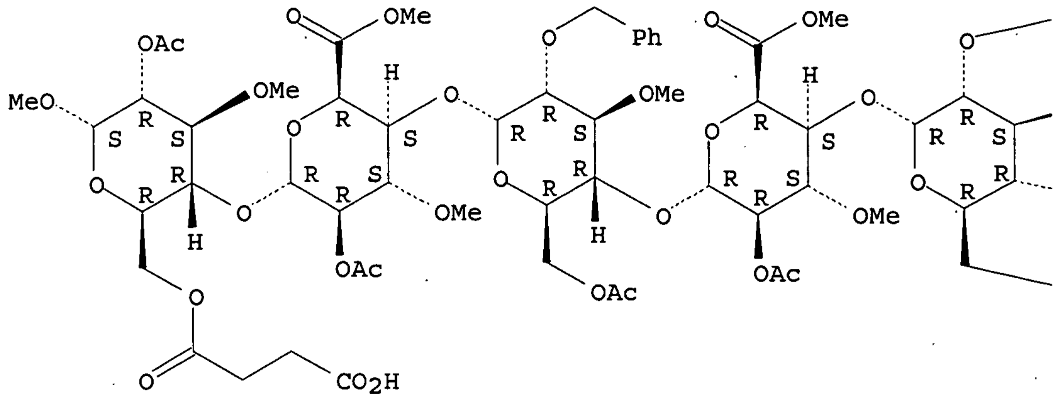
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)

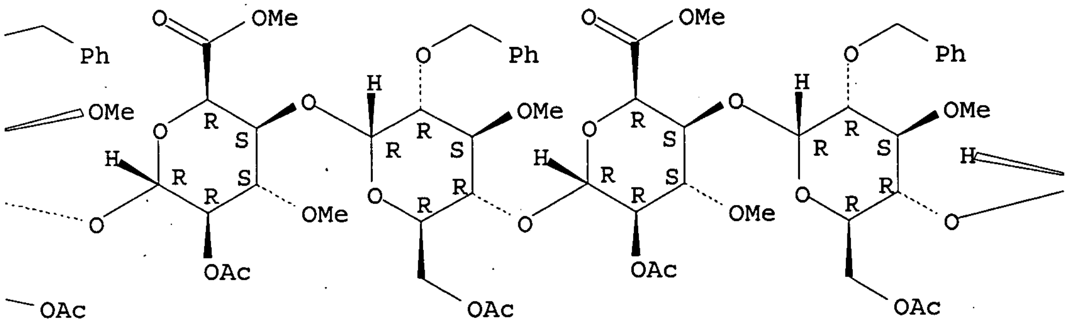
MF C133 H178 O71

Absolute stereochemistry.

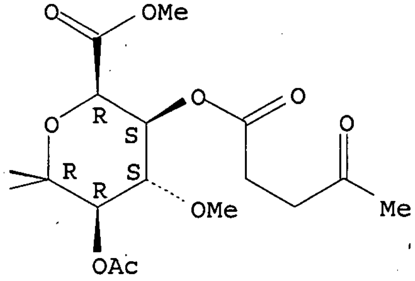
PAGE 1-A



PAGE 1-B



PAGE 1-C



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

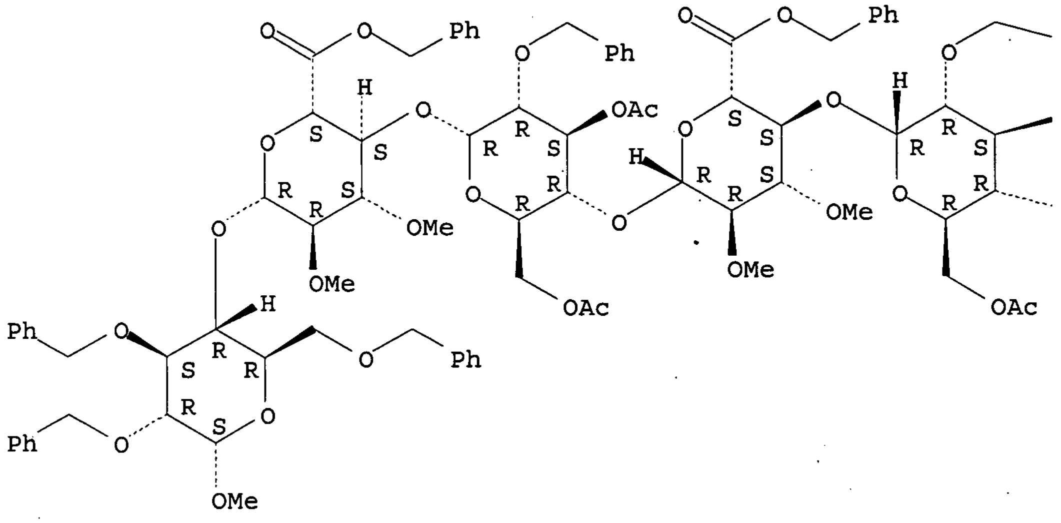
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-
acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-
methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-
O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-
O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-2,3,6-

```
     tris-O-(phenylmethyl)- (9CI)
MF   C112 H132 O40
```

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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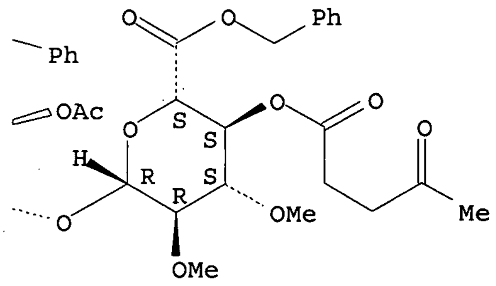

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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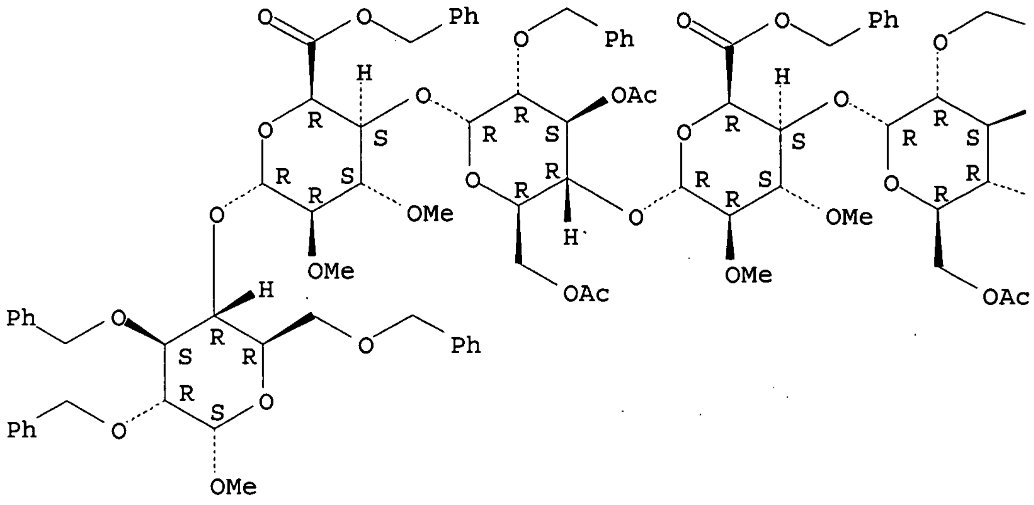
L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-
     2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-
     6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-
     (phenylmethyl)- (9CI)
MF   C176 H208 O66
```

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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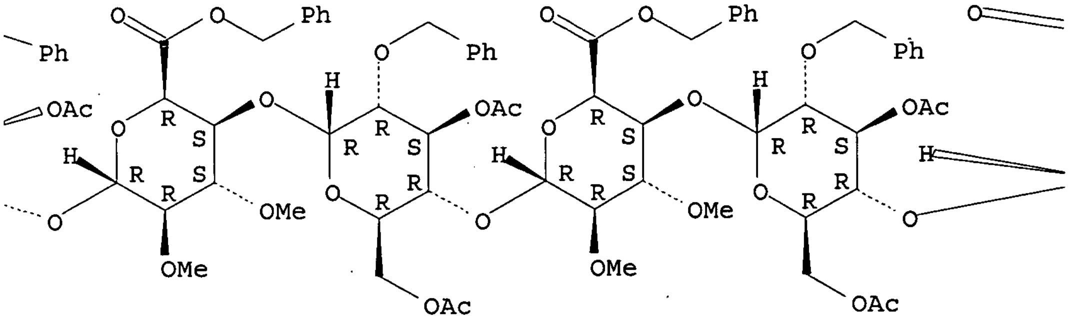

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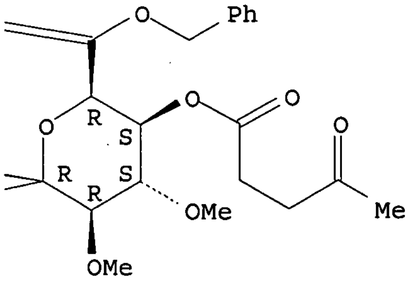

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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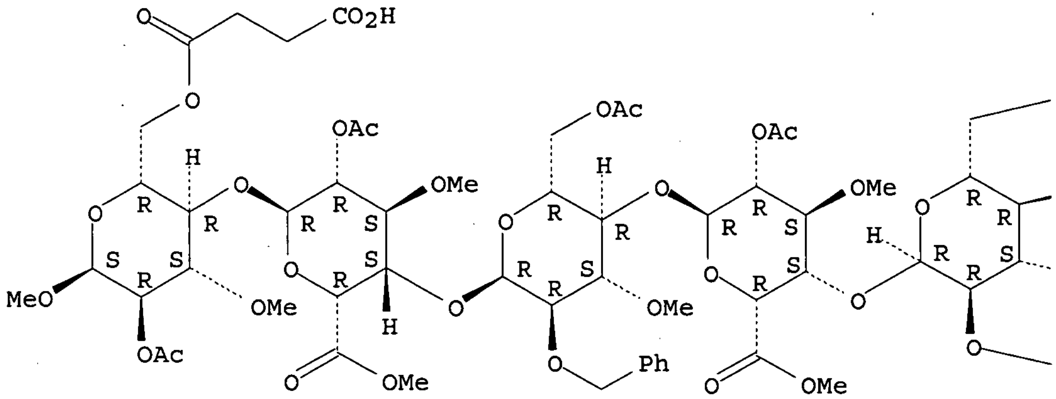
L5   16 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-
     methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-
```

methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)

MF $C_{107}H_{144}O_{58}$

Absolute stereochemistry.

PAGE 1-A



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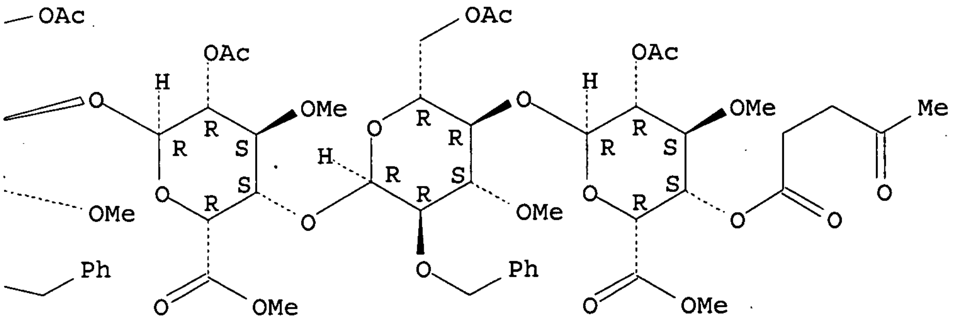


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

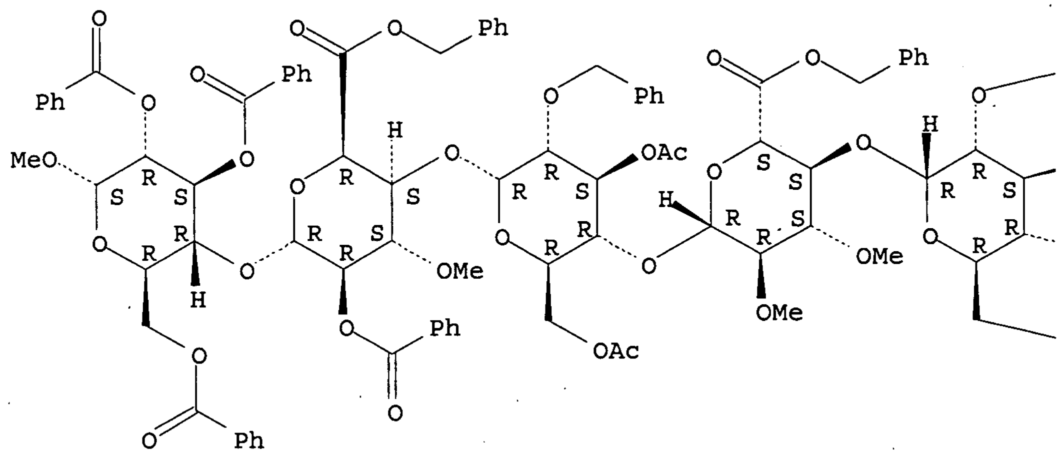
L5   16 ANSWERS   REGISTRY   COPYRIGHT 2006 ACS on STN

IN   α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-β-D-glucopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-benzoyl-3-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-, tribenzoate (9CI)

MF C118 H128 O44

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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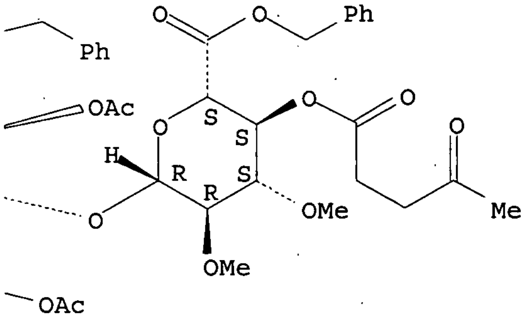


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

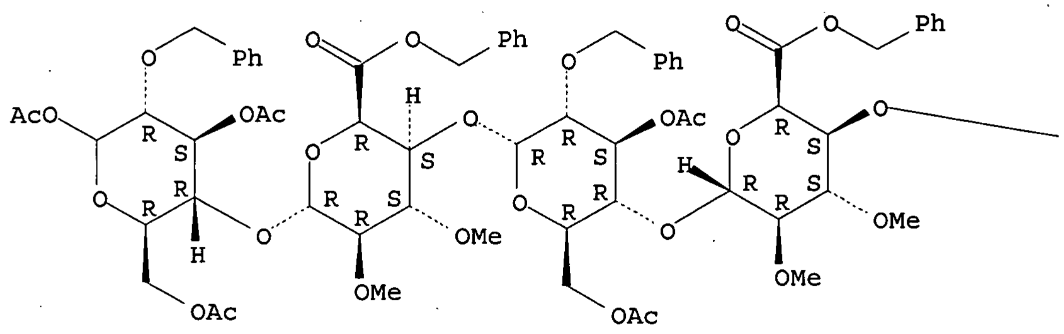
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, triacetate (9CI)

MF C103 H124 O43

Absolute stereochemistry.

PAGE 1-A



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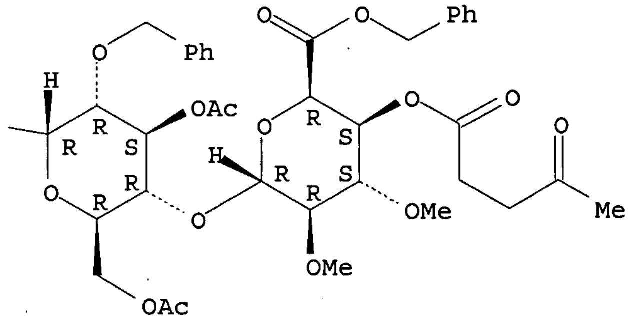
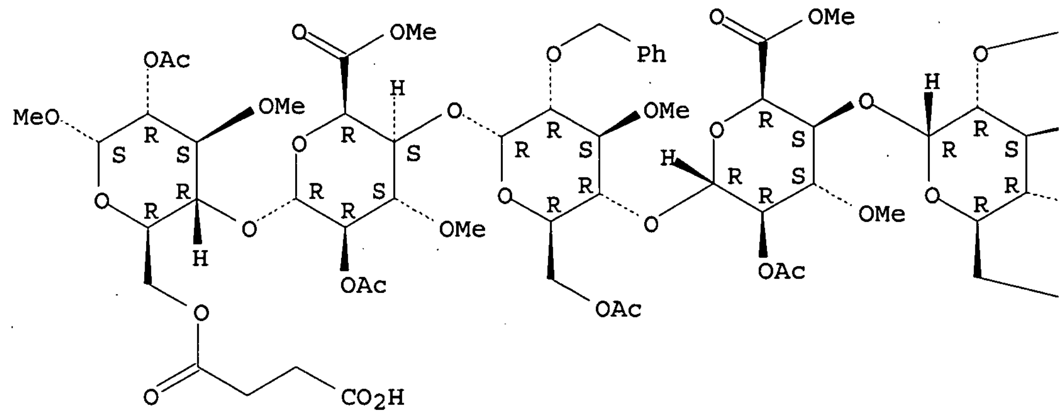


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN α-D-Glucopyranoside, methyl O-2-O-acetyl-4-O-(1,4-dioxopentyl)-6-
methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-acetyl-3-O-
methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2-O-
acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-O-6-O-
acetyl-3-O-methyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-
O-2-O-acetyl-6-methyl-3-O-methyl-α-L-idopyranuronosyl-(1→4)-3-
O-methyl-, 2-acetate 6-(hydrogen butanedioate) (9CI)
MF C81 H110 O45

Absolute stereochemistry.

PAGE 1-A



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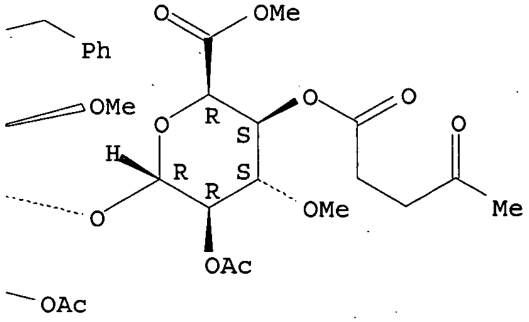

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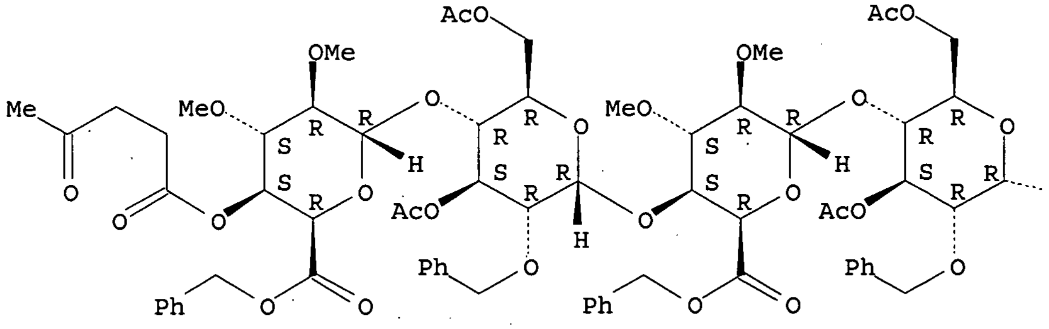
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2,3,6-tris-O-(phenylmethyl)- (9CI)

MF C144 H170 O53

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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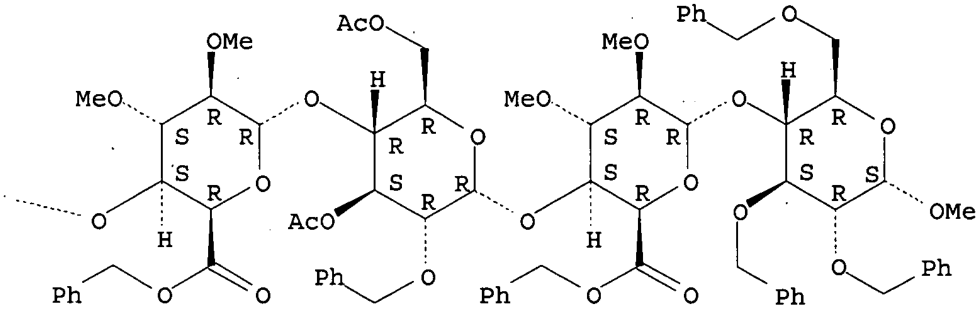


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

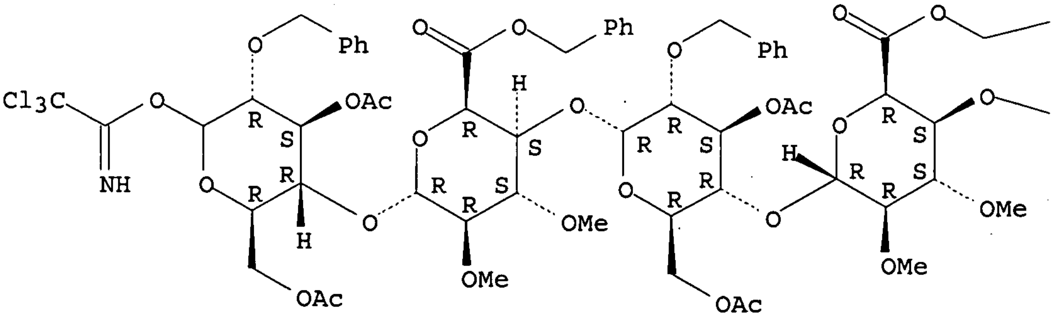
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

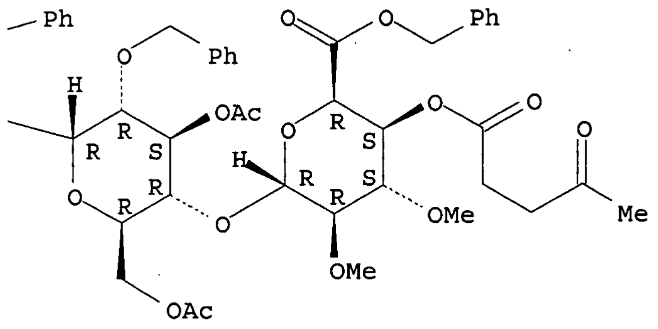
IN D-Glucopyranose, O-4-O-(1,4-dioxopentyl)-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-2,3-di-O-methyl-6-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-2-O-(phenylmethyl)-, 3,6-diacetate 1-(2,2,2-trichloroethanimidate) (9CI)

MF C103 H122 Cl3 N O42

Absolute stereochemistry.

PAGE 1-A





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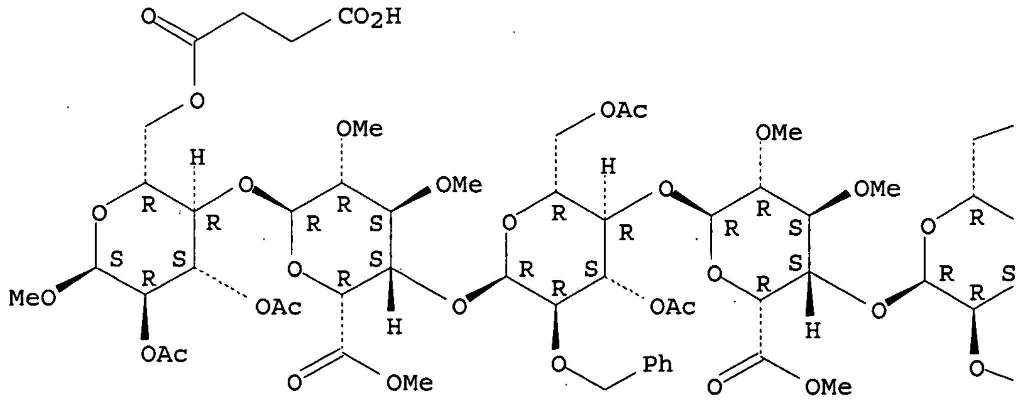
L5 16 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

IN α-D-Glucopyranoside, methyl O-4-O-(1,4-dioxopentyl)-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-O-3,6-di-O-acetyl-2-O-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-O-6-methyl-2,3-di-O-methyl-α-L-idopyranuronosyl-(1→4)-, 2,3-diacetate 6-(hydrogen butanedioate) (9CI)

MF C159 H212 O84

Absolute stereochemistry.



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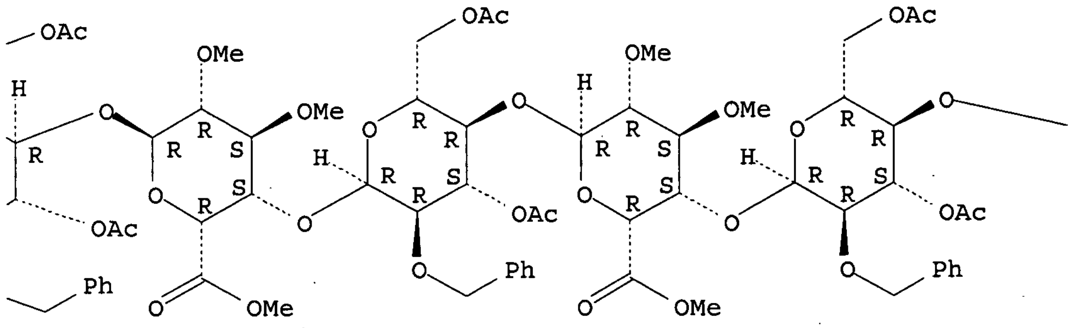

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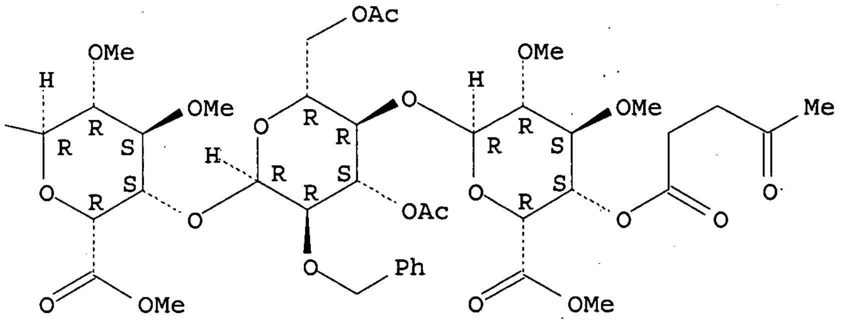

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L7          5 L6 NOT PY>2000

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L6   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Identification of a hexasaccharide sequence suitable for polymerization
     with a view to thrombin inhibition. [Erratum to document cited in
     CA131:228904]
AB   The title has been corrected from "Identification of a hexasaccharide sequence
     able to inhibit thrombin and suitable for polymerization" to "Identification
of a
     hexasaccharide sequence suitable for polymerization with a view to thrombin
     inhibition.".
AN   2000:253318  CAPLUS <<LOGINID::20061106>>
DN   134:193655
TI   Identification of a hexasaccharide sequence suitable for polymerization
     with a view to thrombin inhibition. [Erratum to document cited in
     CA131:228904]
AU   Duchaussoy, P.; Jaurand, G.; Driguez, P.-A.; Lederman, I.; Gourvenec, F.;
     Strassel, J.-M.; Sizun, P.; Petitou, M.; Herbert, J.-M.
CS   Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO   Carbohydrate Research (2000), 325(4), 321
     CODEN: CRBRAT; ISSN: 0008-6215
PB   Elsevier Science Ltd.
DT   Journal
LA   English

L6   ANSWER 2 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   "Design and synthesis of heparin mimetics able to inhibit thrombin". Part
     2 assessment through chemical synthesis of the size of the heparin
     sequence involved in thrombin inhibition
AB   Deca- to eicosasaccharides having the generic structure methyl(sodium
     2,3-di-O-methyl-4-O-sodium sulfonato-α-L-idopyranosyluronate)-
     (1→4)-[(2,3,6-tri-O-sodium sulfonato-α-D-glucopyranosyl)-
     (1→4)-(sodium 2,3-di-O-methyl-α-L-idopyranosyluronate)-
     (1→4)]n-2,3,6-tri-O-sodium sulfonato-α-D-glucopyranoside have
     been synthesized from a single disaccharide precursor.  All of them bind
     to and activate antithrombin.  When n ≤ 6 only Factor Xa inhibition
     is observed, whereas when n > 6 Factor Xa and thrombin are both inhibited in
     the presence of antithrombin.  These results indicate that, in heparin,
     the sequence involved in antithrombin-catalyzed thrombin inhibition is a
     pentadecaor a hexadecasaccharide.
AN   1999:492122  CAPLUS <<LOGINID::20061106>>
DN   131:257771
TI   "Design and synthesis of heparin mimetics able to inhibit thrombin". Part
     2 assessment through chemical synthesis of the size of the heparin
     sequence involved in thrombin inhibition
AU   Duchaussoy, Philippe; Jaurand, Guy; Driguez, Pierre-A.; Lederman, Isidore;
     Ceccato, Marie-L.; Gourvenec, Francoise; Strassel, Jean-M.; Sizun,
     Philippe; Petitou, Maurice; Herbert, Jean-M.
CS   Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO   Carbohydrate Research (1999), 317(1-4), 85-99
     CODEN: CRBRAT; ISSN: 0008-6215
PB   Elsevier Science Ltd.
DT   Journal
LA   English
RE.CNT  18     THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6   ANSWER 3 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Design and synthesis of heparin mimetics able to inhibit thrombin. Part 1.
     Identification of a hexasaccharide sequence able to inhibit thrombin and
     suitable for "polymerization"
AB   Three hexasaccharides, having from low to very high affinity for
     antithrombin, were synthesized from disaccharide building block
     precursors.  One of them, methyl(sodium 2,3-di-O-methyl-4-O-sodium
     sulfonato-α-L-idopyranosyluronate)-(1→4)-[(2,3,6-tri-O-sodium
     sulfonato-α-D-glucopyranosyl)-(1→4)-(sodium
     2,3-di-O-methyl-α-L-idopyranosyluronate)-(1→4)]2-2,3,6-tri-O-
     sodium sulfonato-α-D-glucopyranoside, obtainable from a single
     disaccharide building block precursor, constitutes a good starting point
     for obtaining simple oligosaccharidic heparin mimetics able to inhibit the
     two coagulation factors, thrombin and Factor Xa.
AN   1999:492121  CAPLUS <<LOGINID::20061106>>
DN   131:228904
TI   Design and synthesis of heparin mimetics able to inhibit thrombin. Part 1.
     Identification of a hexasaccharide sequence able to inhibit thrombin and
     suitable for "polymerization"
AU   Duchaussoy, Philippe; Jaurand, Guy; Driguez, Pierre-A.; Lederman, Isidore;
     Gourvenec, Francoise; Strassel, Jean-M.; Sizun, Philippe; Petitou,
     Maurice; Herbert, Jean-M.
CS   Sanofi Recherche, Haemobiology Research Department, Toulouse, F-31036, Fr.
SO   Carbohydrate Research (1999), 317(1-4), 63-84
     CODEN: CRBRAT; ISSN: 0008-6215
PB   Elsevier Science Ltd.
DT   Journal
LA   English
RE.CNT  22     THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6   ANSWER 4 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   First synthetic carbohydrates with the full anticoagulant properties of
     heparin
AB   Using the imidate glycosylation procedure, the authors have synthesized
     oligosaccharide mols. displaying the dual (anti-factor Xa and
     anti-thrombin) activity of heparin mediated by AT III.  "Non-glycosamino"
     glycan heparin analogs, where N-sulfonato substituents were replaced by
     O-sulfonato groups and -OH groups were alkylated, which preserve the
     specific binding to AT III, yet simplify synthesis, were used.  Repetitive
     block synthesis, using disaccharide synthons, gave hexa- to
     eicosa-saccharides, which were tested for biol. activity in thrombin or
     factor Xa inhibition.  Regarding the long standing question about the min.
     size of heparin fragments able to catalyze thrombin inhibition, the
     present data restrict the choice to a pentadeca- or hexadeca-saccharide.
AN   1998:794792  CAPLUS <<LOGINID::20061106>>
DN   130:110506
TI   First synthetic carbohydrates with the full anticoagulant properties of
     heparin
AU   Petitou, Maurice; Duchaussoy, Philippe; Driguez, Pierre-A.; Jaurand, Guy;
     Herault, Jean-P.; Lormeau, Jean-C.; Van Boeckel, Constant A. A.; Herbert,
     Jean-M.
CS   Haemobiology Research Department, Sanofi Recherche, Toulouse, F-31036, Fr.
SO   Angewandte Chemie, International Edition (1998), 37(21), 3009-3014
     CODEN: ACIEF5; ISSN: 1433-7851
PB   Wiley-VCH Verlag GmbH
DT   Journal
LA   English
RE.CNT  29    THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6   ANSWER 5 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Preparation of synthetic polysaccharides for use in pharmaceutical
     compositions
AB   Polysaccharides (d.p. 8-24) comprising concatenations of disaccharides
     consisting of a uronic acid and a hexose (all OH groups being etherified
     with C1-6 alkyl groups or esterified with sulfonic acids) and their salts
     are prepared for use in pharmaceuticals (no data).  The preparation of
     polysaccharides with d.p. 2-10 and their intermediates is described.
AN   1998:15784  CAPLUS <<LOGINID::20061106>>
DN   128:90258
TI   Preparation of synthetic polysaccharides for use in pharmaceutical
     compositions
IN   Duchaussoy, Philippe; Herbert, Jean-Marc; Jaurand, Guy; Petitou, Maurice;
     Van Boeckel, Constant
PA   Sanofi, Fr.; Akzo Nobel N.V.
SO   PCT Int. Appl., 70 pp.
     CODEN: PIXXD2
DT   Patent
LA   French
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   WO 9747659           A1    19971218    WO 1997-FR1048         19970611
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             PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ,
             VN, YU, ZW
         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
     FR 2749849           A1    19971219    FR 1996-7457           19960614
     FR 2749849           B1    19980904
     CA 2258146           AA    19971218    CA 1997-2258146        19970611
     CA 2258146           C     20031007
     AU 9732667           A1    19980107    AU 1997-32667          19970611
     EP 904299            A1    19990331    EP 1997-928337         19970611
     EP 904299            B1    20010829
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 11513061          T2    19991109    JP 1998-501307         19970611
     JP 3501813           B2    20040302
     BR 9709722           A     20000125    BR 1997-9722           19970611
     AT 204883            E     20010915    AT 1997-928337         19970611
     ES 2163171           T3    20020116    ES 1997-928337         19970611
     PT 904299            T     20020228    PT 1997-928337         19970611
     MX 9810514           A     20000630    MX 1998-10514          19981210
     NO 9805831           A     19990211    NO 1998-5831           19981211
     NO 319037            B1    20050606
     US 2004068108        A1    20040408    US 2003-677894         20031002
PRAI FR 1996-7457         A     19960614
     WO 1997-FR1048       W     19970611
     US 1998-202241       B1    19981210
     US 2000-686373       B1    20001011
```

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OS    MARPAT 128:90258

L6    ANSWER 6 OF 6  CAPLUS  COPYRIGHT 2006 ACS on STN
TI    Polymer-supported solution synthesis of heparan sulfate-like oligomers
AB    The polyethylene glycol (PEG-polymer)-supported solution synthesis of heparan
      sulfate-like oligomers, which differ in length (up till 12-mers) and
      sulfation pattern, is described.
AN    1997:357323  CAPLUS <<LOGINID::20061106>>
DN    127:66056
TI    Polymer-supported solution synthesis of heparan sulfate-like oligomers
AU    Dreef-Tromp, C. M.; Willems, H. A. M.; Westerduin, P.; van Veelen, P.; van
      Boeckel, C. A. A.
CS    N.V. Organon Scientific Development Group, Oss, 5340 BH, Neth.
SO    Bioorganic & Medicinal Chemistry Letters (1997), 7(9), 1175-1180
      CODEN: BMCLE8; ISSN: 0960-894X
PB    Elsevier
DT    Journal
LA    English
RE.CNT  20    THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d his

     (FILE 'HOME' ENTERED AT 15:16:40 ON 06 NOV 2006)

     FILE 'REGISTRY' ENTERED AT 15:16:55 ON 06 NOV 2006
L1                STRUCTURE UPLOADED
L2             15 S L1
L3                STRUCTURE UPLOADED
L4              1 S L3
L5             16 S L3 SSS FULL

     FILE 'CAPLUS' ENTERED AT 15:20:45 ON 06 NOV 2006
L6              6 S L5
L7              5 S L6 NOT PY>2000

=> log hold
COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                          ENTRY    SESSION
FULL ESTIMATED COST                                       18.85     188.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)           SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                       -4.50      -4.50

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:21:31 ON 06 NOV 2006
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=> s l5
L8           1 L5

=> d l8 ti abs bib

L8   ANSWER 1 OF 1  USPATFULL on STN
TI      Synthetic polysaccharides, process for their preparation and
       pharmaceutical compositions containing them
AB     Synthetic polysaccharides are disclosed containing 8-24 monosaccharide
       units made up of a concatenation of disaccharides consisting of a uronic
       acid and a hexose, wherein the hydroxyl groups of the polysaccharides
       are etherified with a C.sub.1-6 alkyl group or esterified in the form of
       a sulpho group, each disaccharide being at least monoetherified; and
       salts thereof, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN     2004:89131  USPATFULL <<LOGINID::20061106>>
TI      Synthetic polysaccharides, process for their preparation and
       pharmaceutical compositions containing them
IN     Duchaussoy, Philippe, Toulouse, FRANCE
       Herbert, Jean Marc, Tournefeuille, FRANCE
       Jaurand, Guy, Oraison, FRANCE
       Petitou, Maurice, Paris, FRANCE
       Van Boeckel, Constant, LX Oss, NETHERLANDS
PI     US 2004068108      A1   20040408
AI     US 2003-677894     A1   20031002 (10)
RLI    Continuation of Ser. No. US 2000-686373, filed on 11 Oct 2000, ABANDONED
       Continuation of Ser. No. US 1998-202241, filed on 10 Dec 1998, ABANDONED
PRAI   FR 1996-7457          19960614
DT     Utility
FS     APPLICATION
LREP   SANOFI-SYNTHELABO INC., 9 GREAT VALLEY PARKWAY, P.O. BOX 3026, MALVERN,
       PA, 19355
CLMN   Number of Claims: 24
ECL    Exemplary Claim: 1
DRWN   No Drawings
LN.CNT 1659
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     3.75     191.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -4.50

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
       DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:51:10 ON 06 NOV 2006

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s heparin and fragment and binding
          4   FILE ADISCTI
          5   FILE ADISINSIGHT
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           5   FILE ADISNEWS
          14   FILE AGRICOLA
           3   FILE ANABSTR
           4   FILE AQUASCI
          16   FILE BIOENG
         714   FILE BIOSIS
         140   FILE BIOTECHABS
         140   FILE BIOTECHDS
         436   FILE BIOTECHNO
          27   FILE CABA
         921   FILE CAPLUS
           1   FILE CEABA-VTB
           2   FILE DDFB
          36   FILE DDFU
        1528   FILE DGENE
  23 FILES SEARCHED...
          51   FILE DISSABS
           2   FILE DRUGB
          74   FILE DRUGU
           5   FILE EMBAL
         728   FILE EMBASE
         280   FILE ESBIOBASE
           2   FILE FSTA
           8   FILE GENBANK
         351   FILE IFIPAT
          16   FILE IMSDRUGNEWS
           2   FILE IMSRESEARCH
          35   FILE JICST-EPLUS
           3   FILE KOSMET
         169   FILE LIFESCI
         722   FILE MEDLINE
           3   FILE NTIS
         150   FILE PASCAL
           3   FILE PHAR
           1   FILE PHARMAML
           4   FILE PHIN
          40   FILE PROMT
           3   FILE PROUSDDR
         699   FILE SCISEARCH
           1   FILE SYNTHLINE
         210   FILE TOXCENTER
       14222   FILE USPATFULL
        1447   FILE USPAT2
  62 FILES SEARCHED...
         370   FILE WPIDS
           3   FILE WPIFV
         370   FILE WPINDEX

  47 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L9   QUE HEPARIN AND FRAGMENT AND BINDING

=> file medline caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     1.22     193.17

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -4.50

FILE 'MEDLINE' ENTERED AT 15:52:05 ON 06 NOV 2006

FILE 'CAPLUS' ENTERED AT 15:52:05 ON 06 NOV 2006
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> s heparin and fragment and binding
L10       1643 HEPARIN AND FRAGMENT AND BINDING

=> s l10 not py>1996)
UNMATCHED RIGHT PARENTHESIS 'PY>1996)'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s l10 not py>1996
L11        991 L10 NOT PY>1996

=> d l11 1-10 ti

L11  ANSWER 1 OF 991     MEDLINE on STN
TI   Analysis of heparin binding to human leukocytes using
     a fluorescein-5-isothiocyanate labeled heparin fragment
     .

L11  ANSWER 2 OF 991     MEDLINE on STN
TI   Preparative capillary electrophoresis and mass spectrometry for the
     identification of a putative heparin-binding site in
     amyloid P component.

L11  ANSWER 3 OF 991     MEDLINE on STN
TI   Heparin-binding domain of fibrin mediates its
     binding to endothelial cells.

L11  ANSWER 4 OF 991     MEDLINE on STN
TI   Characterization and determination of the relative abundance of two types
     of insulin-like growth factor binding protein-5 proteases that
     are secreted by human fibroblasts.

L11  ANSWER 5 OF 991     MEDLINE on STN
TI   A negative regulatory factor for the dark repression of Arabidopsis
     thaliana cab1 gene.

L11  ANSWER 6 OF 991     MEDLINE on STN
TI   Interaction of heparin with fibrinogen using surface plasmon
     resonance technology: investigation of heparin binding
     site on fibrinogen.

L11  ANSWER 7 OF 991     MEDLINE on STN
TI   Novel synthetic peptides from the C-terminal heparin
     binding domain of fibronectin with heparin
     binding activity.

L11  ANSWER 8 OF 991     MEDLINE on STN
TI   Fibronectin and fibronectin fragments modulate the expression of
     proteinases and proteinase inhibitors in human periodontal ligament cells.

L11  ANSWER 9 OF 991     MEDLINE on STN
TI   A monoclonal antibody against human lipoprotein lipase inhibiting
     heparin binding without affecting catalytic activity.

L11  ANSWER 10 OF 991     MEDLINE on STN
TI   IGFBP-3 proteolysis by plasmin, thrombin, serum: heparin
     binding, IGF binding, and structure of fragments.

=> s l11 and (uronic or uronate)
```

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L12          8 L11 AND (URONIC OR URONATE)

=> d l12 1-8 ti

L12  ANSWER 1 OF 8     MEDLINE on STN
TI   A monoclonal antibody (ST-1) directed to the native heparin
     chain.

L12  ANSWER 2 OF 8     MEDLINE on STN
TI   Structure of a dermatan sulfate hexasaccharide that binds to
     heparin cofactor II with high affinity.

L12  ANSWER 3 OF 8     MEDLINE on STN
TI   Synthesis of heparin fragments. A chemical synthesis of the
     pentasaccharide O-(2-deoxy-2-sulfamido-6-O-sulfo-alpha-D-glucopyranosyl)-
     (1-4 )-O-(beta-D-glucopyranosyluronic acid)-(1-4)-O-(2-deoxy-2-sulfamido-
     3,6-di-O-sulfo-alpha-D-glu copyranosyl)-(1-4)-O-(2-O-sulfo-alpha-L-
     idopyranosyluronic acid)-(1-4)-2-deoxy-2-sulfamido-6-O-sulfo-D-
     glucopyranose decasodium salt, a heparin fragment
     having high affinity for antithrombin III.

L12  ANSWER 4 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   A monoclonal antibody (ST-1) directed to the native heparin
     chain

L12  ANSWER 5 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Structure of a dermatan sulfate hexasaccharide that binds to
     heparin cofactor II with high affinity

L12  ANSWER 6 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis of a pentasaccharide corresponding to the antithrombin III
     binding fragment of heparin

L12  ANSWER 7 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis of heparin fragments.  A chemical synthesis of the
     trisaccharide O-(2-deoxy-2-sulfamido-3,6-di-O-sulfo-α-D-
     glucopyranosyl)-(1 → 4)-O-(2-O-sulfo-α-L-idopyranosyluronic
     acid)-(1 → 4)-2-deoxy-2-sulfamido-6-O-sulfo-D-glucopyranose
     heptasodium salt

L12  ANSWER 8 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Glycosaminoglycan-lipoprotein interactions:  3.  Structure of dermatan
     sulfate variants with high affinity for low density lipoprotein


=> d l12 2 3 7 8 ti abs bib

L12  ANSWER 2 OF 8     MEDLINE on STN
TI   Structure of a dermatan sulfate hexasaccharide that binds to
     heparin cofactor II with high affinity.
AB   Dermatan sulfate increases the rate of inhibition of thrombin by
     heparin cofactor II (HCII) approximately 1000-fold by providing a
     catalytic template to which both the inhibitor and the protease bind.
     Dermatan sulfate is a linear polymer of D-glucuronic acid (GlcA) or
     L-iduronic acid (IdoA) alternating with N-acetyl-D-galactosamine (GalNAc)
     residues.  Heterogeneity in dermatan sulfate results from varying degrees
     of O-sulfation and from the presence of the two types of uronic
     acid residues.  To characterize the HCII-binding site in
     dermatan sulfate, we isolated the smallest fragment of dermatan
     sulfate that bound to HCII with high affinity.  Dermatan sulfate was
     partially N-deacetylated by hydrazinolysis, cleaved with nitrous acid at
     pH 4, and reduced with [3H]NaBH4.  The resulting fragments, containing an
     even number of monosaccharide units with the reducing terminal GalNAc
     converted to [3H]2,5-anhydro-D-talitol (ATalR), were size-fractionated and
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then chromatographed on an HCII-Sepharose column. The smallest HCII-binding fragments were hexasaccharides, of which approximately 6% bound. Based on ion-exchange chromatography, the bound material appeared to comprise a heterogeneous mixture of molecules possessing four, five, or six sulfate groups per hexasaccharide. Subsequently, hexasaccharides with the highest affinity for HCII were isolated by overloading the HCII-Sepharose column. The high-affinity hexasaccharides were fractionated by strong anion-exchange chromatography, and one major peak representing approximately 2% of the starting hexasaccharides was isolated. The high-affinity hexasaccharide was cleaved to disaccharides that were analyzed by anion-exchange chromatography, paper electrophoresis, and paper chromatography. A single disulfated disaccharide, IdoA(2-SO4)----ATalR(4-SO4) was observed, indicating that the hexasaccharide has the following structure: IdoA(2-SO4)----GalNAc(4-SO4)----IdoA(2-SO4)---- GalNAc(4-SO4)----IdoA(2-SO4)----ATalR(4-SO4). Since IdoA(2-SO4)----GalNAc(4-SO4) comprises only approximately 5% of the disaccharides present in intact dermatan sulfate, clustering of these disaccharides must occur during biosynthesis to form the high-affinity binding site for HCII.

AN 91009316 MEDLINE <<LOGINID::20061106>>
DN PubMed ID: 2211700
TI Structure of a dermatan sulfate hexasaccharide that binds to heparin cofactor II with high affinity.
AU Maimone M M; Tollefsen D M
CS Department of Medicine and Biochemistry, Washington University, St. Louis, Missouri 63110.
NC HL-14147 (NHLBI)
SO The Journal of biological chemistry, (1990 Oct 25) Vol. 265, No. 30, pp. 18263-71.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199011
ED Entered STN: 17 Jan 1991
Last Updated on STN: 17 Jan 1991
Entered Medline: 15 Nov 1990

L12 ANSWER 3 OF 8 MEDLINE on STN
TI Synthesis of heparin fragments. A chemical synthesis of the pentasaccharide O-(2-deoxy-2-sulfamido-6-O-sulfo-alpha-D-glucopyranosyl)-(1-4)-O-(beta-D-glucopyranosyluronic acid)-(1-4)-O-(2-deoxy-2-sulfamido-3,6-di-O-sulfo-alpha-D-glu copyranosyl)-(1-4)-O-(2-O-sulfo-alpha-L-idopyranosyluronic acid)-(1-4)-2-deoxy-2-sulfamido-6-O-sulfo-D-glucopyranose decasodium salt, a heparin fragment having high affinity for antithrombin III.
AB Known allyl 4,6-O-benzylidene-alpha-D-glucopyranoside was first converted into methyl (prop-1-enyl 2,3-di-O-benzyl-4-O-chloroacetyl-alpha-D-glucopyranosid)-uronate. Acid hydrolysis, followed by treatment with (bromomethylene)dimethyl-ammonium bromide, gave methyl (2,3-di-O-benzyl-4-O-chloroacetyl-alpha-D-glucopyranosyl bromide) uronate. Condensation of this bromide with 3-O-acetyl-1,6-anhydro-2-azido-2-deoxy-4-O-(methyl 2,3-di-O-benzyl-4-O-chloroacetyl-beta-D-glucopyranosyluronate)-bet a-D-glucopyranose. Acetolysis, followed by treatment with titanium tetrabromide, then gave 3,6-di-O-acetyl-2-azido-2-deoxy-4-O-(methyl 2,3-di-O-benzyl-4-O-chloroacetyl-beta-D-glucopyranosyluronate)-alp ha-D-glucopyranosyl bromide. Condensation of this bromide with benzyl 6-O-acetyl-3-O-benzyl-2-benzyloxy-carbonylamino-2-deoxy-4-O-(methyl 2-O-acetyl-3-O-benzyl-alpha-L-idopyranosyluronate)-alpha-D-glucopyranoside provided benzyl O-(methyl 2,3-di-O-benzyl-4-O-chloroacetyl-beta-D-glucopyranosyluronate)-(1----4)-O-(3,6-di-O-acetyl- -2-azido-2-deoxy-alpha-D-glucopyranosyl)-(1----4)-O-(methyl 2-O-acetyl-3-O-benzyl-alpha-L-idopyranosyluronate)-(1----4)-6-

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     O-ac etyl-3-O- acetyl-3-O-benzyl-2-benzyloxycarbonylamino-2-deoxy-alpha-D-
     gluc opyranoside.  O-Dechloroacetylation followed by condensation with
     6-O-acetyl-2-azido-3,4-di-O-benzyl-2-deoxy-alpha-D-glucopyranosyl bromide
     provided benzyl O-(6-O-acetyl-2-azido-3,4-di-O-benzyl-2-deoxy-beta-D-
     glucopyranosyl)- (1----4)-O-(methyl 2,3-di-O-benzyl-beta-D-
     glucopyranosyluronate)-(1----4)- O-(3,6-di-O-acetyl-2-azido-2-deoxy-alpha-
     D-glucopyranosyl)-(1----4)-O-(m ethyl 2-O-acetyl-3-O-benzyl-alpha-L-
     idopyranosyluronate)-(1----4)-6-O-ac etyl-3-O- benzyl-2-
     benzyloxycarbonylamino-2-deoxy-alpha-D-glucopyranoside in 70% yield.
     O-Deacetylation followed by re-esterification, O-sulfation,
     saponification, catalytic hydrogenolysis, and N-sulfation gave the
     decasodium salt of O-(2-deoxy-2-sulfamido-6-O-sulfo-alpha-D-
     glucopyranosyl)-(1----4)-O-(beta-D-glucopyranosyluronic
     acid)-(1----4)-O-(2-deoxy-2-sulfamido-3,6-di-O-sulfo-alpha-D-gl
     ucopyranosyl)-(1----4)-O-(2-O-sulfo-alpha-L-idopyranosyluronic+ ++
     acid)-(1----4)-2-deoxy-2-sulfamido-6-O-sulfo-D-glucopyranose.  This
     synthetic pentasaccharide binds to antithrombin III with an association
     constant similar to that of high-affinity heparin and elicits a
     potent anti-factor Xa activity in plasma.
AN   86217867     MEDLINE <<LOGINID::20061106>>
DN   PubMed ID: 3708627
TI   Synthesis of heparin fragments. A chemical synthesis of the
     pentasaccharide O-(2-deoxy-2-sulfamido-6-O-sulfo-alpha-D-glucopyranosyl)-
     (1-4 )-O-(beta-D-glucopyranosyluronic acid)-(1-4)-O-(2-deoxy-2-sulfamido-
     3,6-di-O-sulfo-alpha-D-glu copyranosyl)-(1-4)-O-(2-O-sulfo-alpha-L-
     idopyranosyluronic acid)-(1-4)-2-deoxy-2-sulfamido-6-O-sulfo-D-
     glucopyranose decasodium salt, a heparin fragment
     having high affinity for antithrombin III.
AU   Petitou M; Duchaussoy P; Lederman I; Choay J; Sinay P; Jacquinet J C;
     Torri G
SO   Carbohydrate research, (1986 Mar 15) Vol. 147, No. 2, pp. 221-36.
     Journal code: 0043535. ISSN: 0008-6215.
CY   Netherlands
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   198606
ED   Entered STN: 21 Mar 1990
     Last Updated on STN: 21 Mar 1990
     Entered Medline: 27 Jun 1986

L12  ANSWER 7 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis of heparin fragments.  A chemical synthesis of the
     trisaccharide O-(2-deoxy-2-sulfamido-3,6-di-O-sulfo-α-D-
     glucopyranosyl)-(1 → 4)-O-(2-O-sulfo-α-L-idopyranosyluronic
     acid)-(1 → 4)-2-deoxy-2-sulfamido-6-O-sulfo-D-glucopyranose
     heptasodium salt
AB   Known 3-O-benzyl-1,2-O isopropylidene-α-D-glucofuranose was first
     converted into Me 3-O-benzyl-1,2-O-isopropylidene-β-L-
     idofuranuronate.  Acid hydrolysis, followed by acetylation and treatment
     with TiBr4, gave Me (2,4-di-O-acetyl-3-O-benzyl-α-L-idopyranosyl
     bromide)uronate, which was immediately transformed into Me
     4-O-acetyl-3-O-benzyl-β-L-idopyranuronate 1,2-(tert-Bu orthoacetate).
     A two-step replacement of the 4-O-acetyl by a 4-O-chloroacetyl group gave
     the key derivative, crystalline Me 3-O-benzyl-4-O-chloroacetyl-β-L-
     idopyranuronate 1,2-(tert-Bu orthoacetate).  Condensation of this
     orthoester with an excess of crystalline benzyl 6-O-acetyl-3-O-benzyl-2-
     (benzyloxycarbonyl)amino-2-deoxy-α-D-glucopyranoside in PhCl in the
     presence of 2,6-dimethylpyridinium perchlorate gave crystalline benzyl
     6-O-acetyl-3-O-benzyl-2-(benzyloxycarbonyl)amino-2-deoxy-4-O-(Me
     2-O-acetyl-3-O-benzyl-4-O-chloroacetyl-α-L-idopyranosyluronate)-
     α-D-glucopyranoside in 40% yield.  O-Demonochloroacetylation,
     followed by condensation with 3,6-di-O-acetyl-2-azido-4-O-benzyl-2-deoxy-
     α-D-glucopyranosyl bromide in CH2Cl2 in the presence of
     2,4,6-trimethylpyridine, Ag triflate, and mol. sieve provided benzyl
     O-(3,6-di-O-acetyl-2-azido-4-O-benzyl-2-deoxy-α-D-glucopyranosyl)-
     (1→4)-O-(Me 2-O-acetyl-3-O-benzyl-α-L-idopyranosyluronate)-
     (1→4)-6-O-acetyl-3-O-benzyl-2-(benzyloxycarbonyl)amino-2-deoxy-
     α-D-glucopyranoside in 88% yield.  O-Deacetylation with NaOH,
     followed successively by O-sulfation in DMF in the presence of SO3-Me3N
     complex, catalytic hydrogenolysis, and N-sulfation in water with the same
     sulfating agent, gave the title compound  This trisaccharide, which is a
     fragment of the minimal antithrombin III-binding region
     in heparin, neither binds to antithrombin III nor induces
     anti-Xa activity.
AN   1984:611616  CAPLUS <<LOGINID::20061106>>
DN   101:211616
TI   Synthesis of heparin fragments.  A chemical synthesis of the
     trisaccharide O-(2-deoxy-2-sulfamido-3,6-di-O-sulfo-α-D-
     glucopyranosyl)-(1 → 4)-O-(2-O-sulfo-α-L-idopyranosyluronic
     acid)-(1 → 4)-2-deoxy-2-sulfamido-6-O-sulfo-D-glucopyranose
     heptasodium salt
AU   Jacquinet, Jean Claude; Pettitou, Maurice; Duchaussoy, Philippe; Lederman,
     Isidore; Choay, Jean; Torri, Giangiacomo; Sinay, Pierre
CS   Lab. Biochim. Structurale, ERA, Orleans, 45046, Fr.
SO   Carbohydrate Research (1984), 130, 221-41
     CODEN: CRBRAT; ISSN: 0008-6215
DT   Journal
LA   English

L12  ANSWER 8 OF 8  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Glycosaminoglycan-lipoprotein interactions:  3.  Structure of dermatan
     sulfate variants with high affinity for low density lipoprotein
AB   An iduronate-rich dermatan sulfate fraction contained variants with high
     affinity for human low-d. lipoprotein (LDL).  Digestion of a dermatan
     sulfate-LDL complex with chondroitinase-ABC yielded fragments containing 10-20
     disaccharide repeats.  Half of the uronate residues in this
     fragment were iduronate-sulfate.  The nonsulfated
     iduronate-bearing repeats were interspersed among the repeats containing
     sulfo-iduronate.  This feature is similar to that observed with
     heparin-related glycans having high affinity for lipoproteins.
AN   1982:176416  CAPLUS <<LOGINID::20061106>>
DN   96:176416
TI   Glycosaminoglycan-lipoprotein interactions:  3.  Structure of dermatan
     sulfate variants with high affinity for low density lipoprotein
AU   Fransson, L. A.; Havsmark, B.
CS   Dep. Physiol. Chem., Univ. Lund, Lund, S-220 07, Swed.
SO   International Journal of Biological Macromolecules (1982), 4(1), 50-4
     CODEN: IJBMDR; ISSN: 0141-8130
DT   Journal
LA   English
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